DFK 21BU04.H Color Camera

The Imaging Source "21" Series USB 2.0 Camera

Only 50.6×50.6×56 mm

Lens not included

The Imaging Source DFK 21BU04.H color camera has a USB 2.0 interface and is the perfect solution for many industrial automation, quality assurance, security, surveillance and medical applications. The color camera ships with the very sensitive 1/4 inch Sony CCD ICX098BQ sensor. With up to 60 images per second, the DFK 21BU04.H is a low cost, yet highly versatile imaging solution. The camera includes a C to CS mount adapter, making it compatible to C and CS mount lenses. Using the optional CS to M12 board lens adapter, the camera is also compatible to M12 board lenses.

The Imaging Source authors and supports drivers, SDKs, extensions and end-user software for Microsoft Windows, which can be freely downloaded from our web site. Extensions for Microsoft Windows enable the DFK 21BU04.H to be integrated in to common machine vision software libraries, such as LabView and OpenCV.

Features

- USB 2.0 interface (forwards compatible)
- $1/4$ inch Sony CCD sensor (ICX098BQ)
- 640×480 (0.3 MP)
- Up to 60 images per second
- Global shutter
- Trigger and I/O inputs
- Only 50.6×50.6×56 mm
- Compatible to C and CS mount lenses
- Manufactured by The Imaging Source
- Ships with Windows software

Accessories

- CS to C mount adapter (shipped as standard)
- C and CS mount lenses
- CS to M12 board lens adapters
- M12 board lenses
- Standard USB 2.0 cable in various lengths
- 5 m USB 2.0 cable with fixing screws
- Trigger cable

Device Drivers for Microsoft Windows

Device Driver for USB Cameras

Software Development Kits (SDKs) for Microsoft Windows

IC Imaging Control .NET Component for C#, VB.NET, C++ Class Library for C++ projects, IC Imaging Control C Library, IC Imaging Control ActiveX, IC Imaging Control ActiveX Runtime Setup

Extensions for Microsoft Windows

TWAIN Source for IC Imaging Control, Cognex VisionPro AIK Plugin for IC Imaging Control, LabVIEW Extension for IC Imaging Control, IC Matlab Plugin for Matlab 10.0 R2010, IC Matlab Plugin for Matlab R2013b and higher versions, IC NeuroCheck Driver for NeuroCheck 6.0, IC NeuroCheck Driver for NeuroCheck 6.1

End User Software for Microsoft Windows

IC Capture - image acquisition, IC Measure - manual on-screen image measurement and image acquisition, IC Fullscreen Presenter, IC Line Profiler, Footswitch software for IC Capture, Scan2Docx, Scan2Docx OCR, Scan2Voice

DFK 21BU04.H Specification

GENERAL BEHAVIOR	
Sensitivity	0.1 lx
Dynamic range	8 bit
Video formats @ frame rate (maximum)	640×480 (0.3 MP) UYVY @ 30 fps 640×480 (0.3 MP) BY8 @ 60 fps

INTERFACE (OPTICAL)	
IR cut filter	✔
Sensor type	CCD
Sensor specification	Sony ICX098BQ
Shutter	global
Format	$^1/_4$ inch
Resolution (maximum)	H: 640 px, V: 480 px
Frame rate (maximum)	60 fps
Pixel size	H: 5.6 μm, V: 5.6 μm
Lens mount	C/CS

INTERFACE (ELECTRICAL)	
Interface	USB 2.0 (forwards compatible)
Supply voltage	4.5 VDC to 5.5 VDC
Current consumption	approx 500 mA @ 5 VDC
Auto iris control	✖
Trigger	✔
I/Os	✔

INTERFACE (MECHANICAL)	
Dimensions	H: 50.6 mm, W: 50.6 mm, L: 56 mm
Mass	265 g

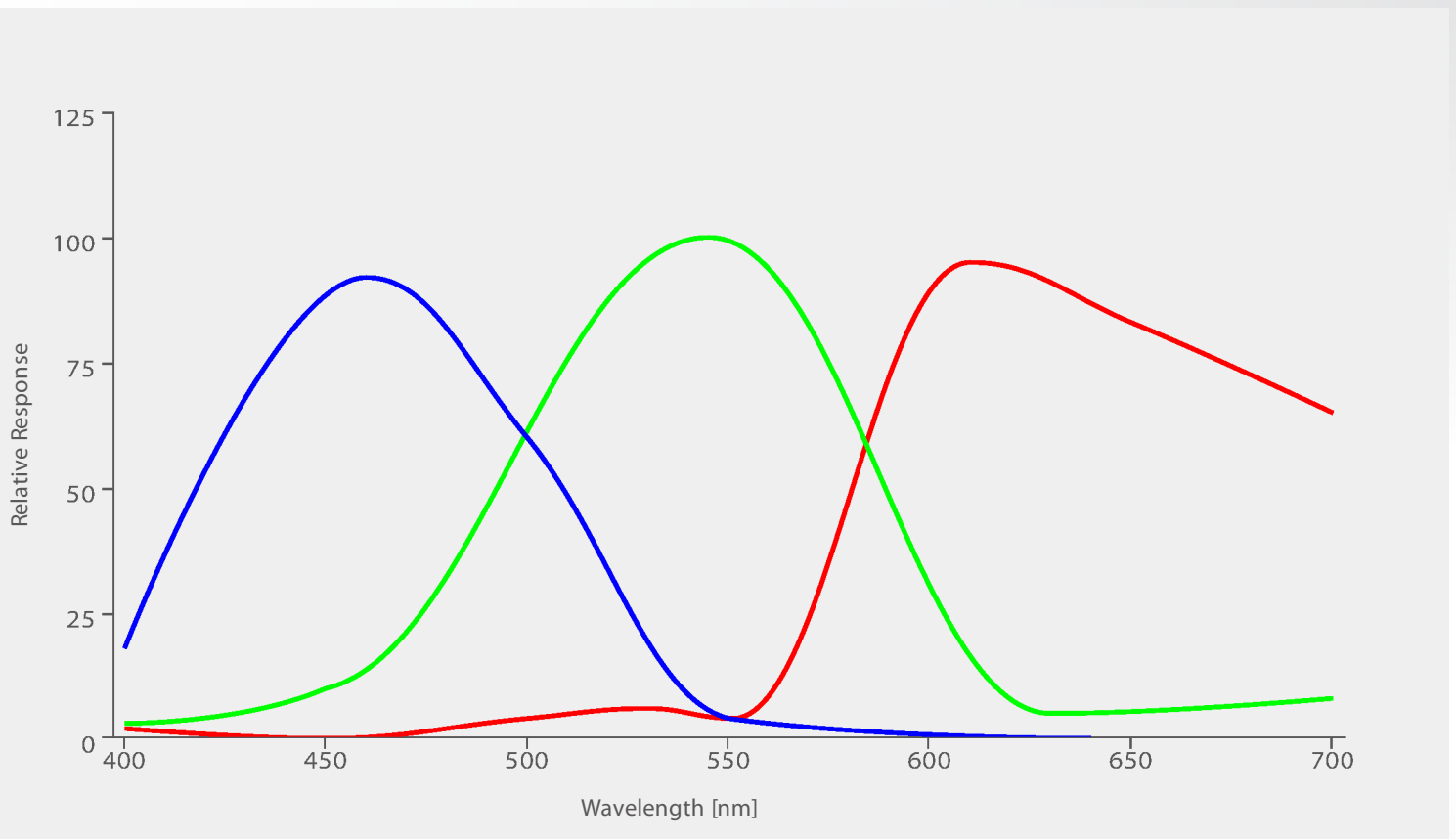| ADJUSTMENTS	
Shutter	$^1/_{10,000}$ s to 30 s
Gain	0 dB to 36 dB
White balance	-2 dB to 6 dB

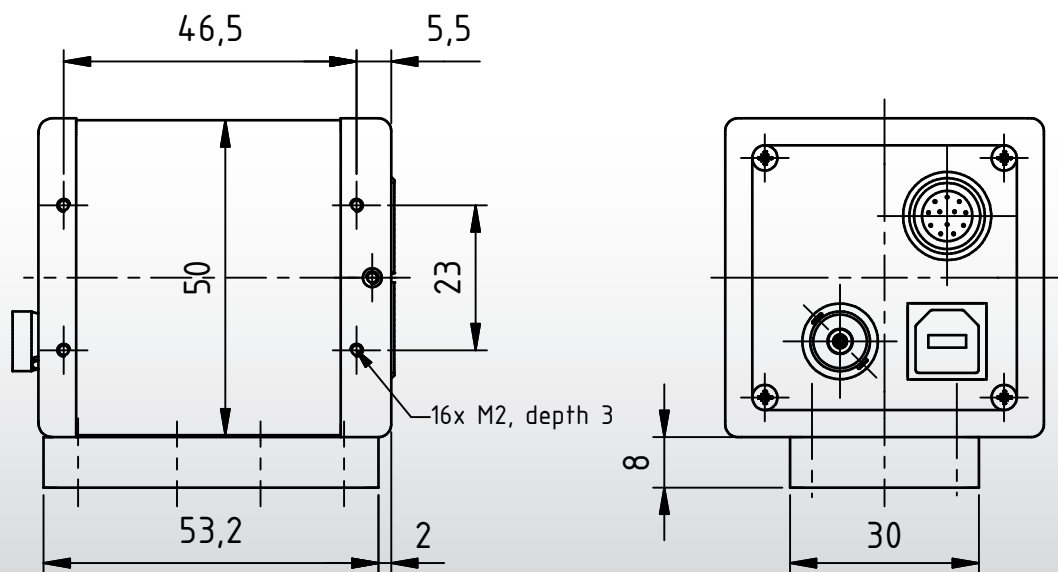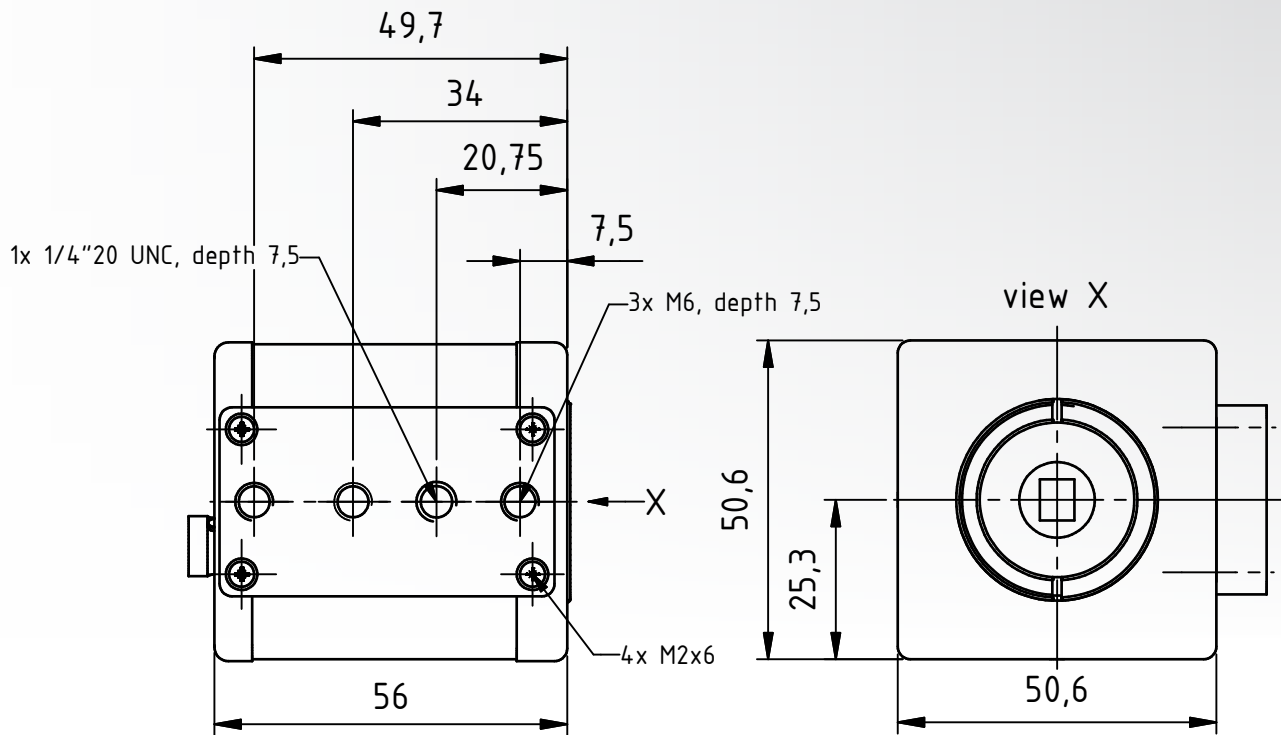| ENVIRONMENTAL	
Temperature (operating)	-5 °C to 45 °C
Temperature (storage)	-20 °C to 60 °C
Humidity (operating)	20 % to 80 % (non-condensing)
Humidity (storage)	20 % to 95 % (non-condensing)

Subject to change

Sony ICX098BQ Spectral Response Curve

CCD Sensor in DFK 21BU04.H

DFK 21BU04.H Dimensional Diagram

49,7

34

20,75

7,5

1x 1/4"20 UNC, depth 7,5

3x M6, depth 7,5

X

4x M2x6

56

view X

50,6

25,3

50,6

46,5

5,5

50

23

16x M2, depth 3

53,2

2

8

30

Dimensions: mm
Tolerances: DIN ISO 2768m