

DMK 31BU03 Monochrome Camera

The Imaging Source "31" Series USB 2.0 Camera



Only 50.6×50.6×56 mm

Lens not included

The Imaging Source DMK 31BU03 monochrome camera has a USB 2.0 interface and is the perfect solution for many industrial automation, quality assurance, security, surveillance and medical applications. The monochrome camera ships with the very sensitive 1/3 inch Sony CCD ICX204AL sensor. With up to 30 images per second, the DMK 31BU03 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 DMK 31BU03 to be integrated in to common machine vision software libraries, such as LabView and OpenCV.

Features

- USB 2.0 interface (forwards compatible)
- 1/3 inch Sony CCD sensor (ICX204AL)
- 1,024×768 (0.8 MP)
- Up to 30 images per second
- Global shutter
- Trigger input
- 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

DMK 31BU03 Specification

GENERAL BEHAVIOR

| | |
|--------------------------------------|----------------------------------|
| Sensitivity | 0.05 lx |
| Dynamic range | 8 bit |
| Video formats @ frame rate (maximum) | 1,024×768 (0.8 MP) Y800 @ 30 fps |

INTERFACE (OPTICAL)

| | |
|----------------------|-------------------------------|
| IR cut filter | ✘ |
| Sensor type | CCD |
| Sensor specification | Sony ICX204AL |
| Shutter | global |
| Format | 1/3 inch |
| Resolution (maximum) | H: 1,024 px, V: 768 px |
| Frame rate (maximum) | 30 fps |
| Pixel size | H: 4.65 µm, V: 4.65 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 |

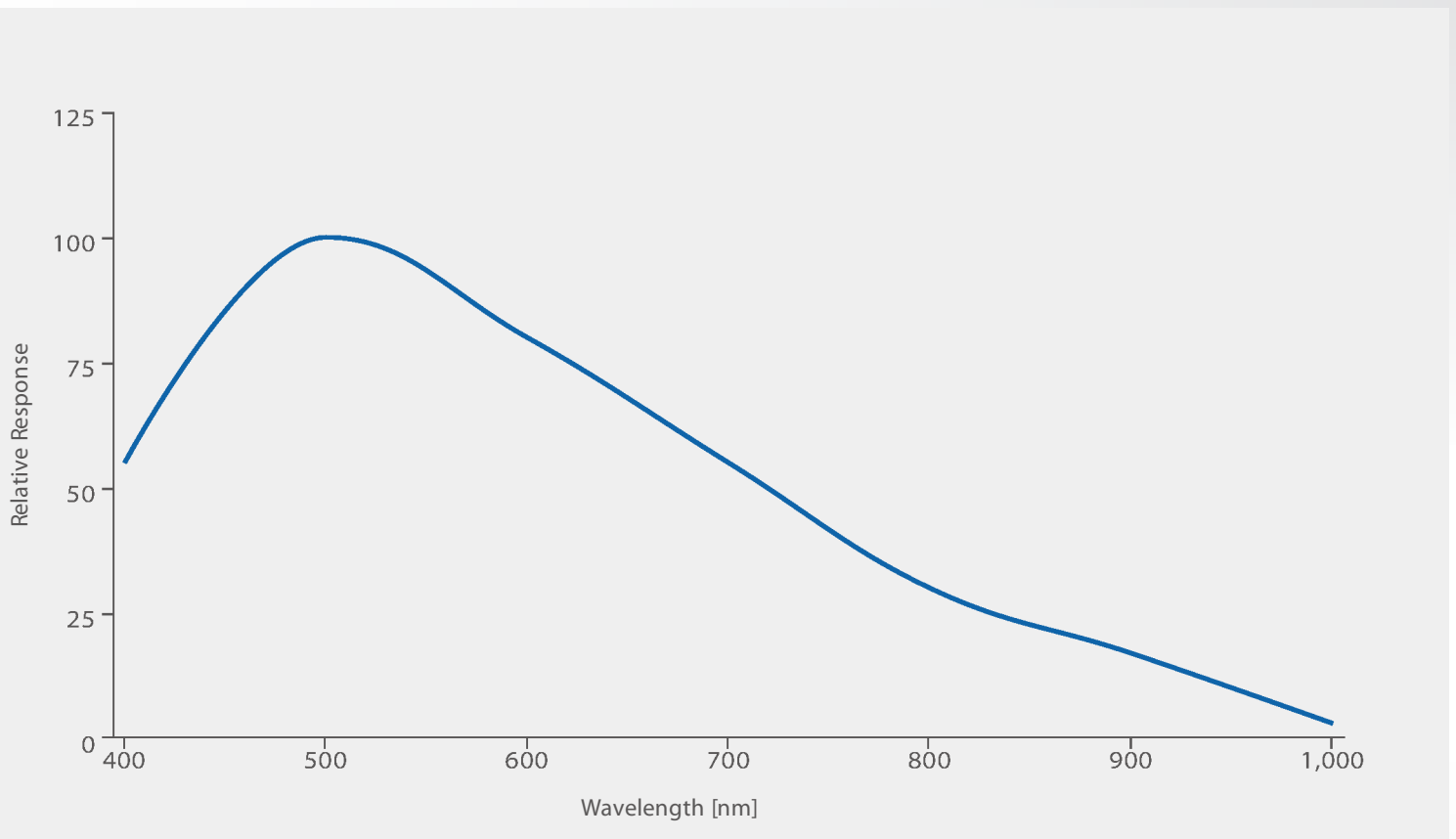
ENVIRONMENTAL

| | |
|-------------------------|-------------------------------|
| 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) |

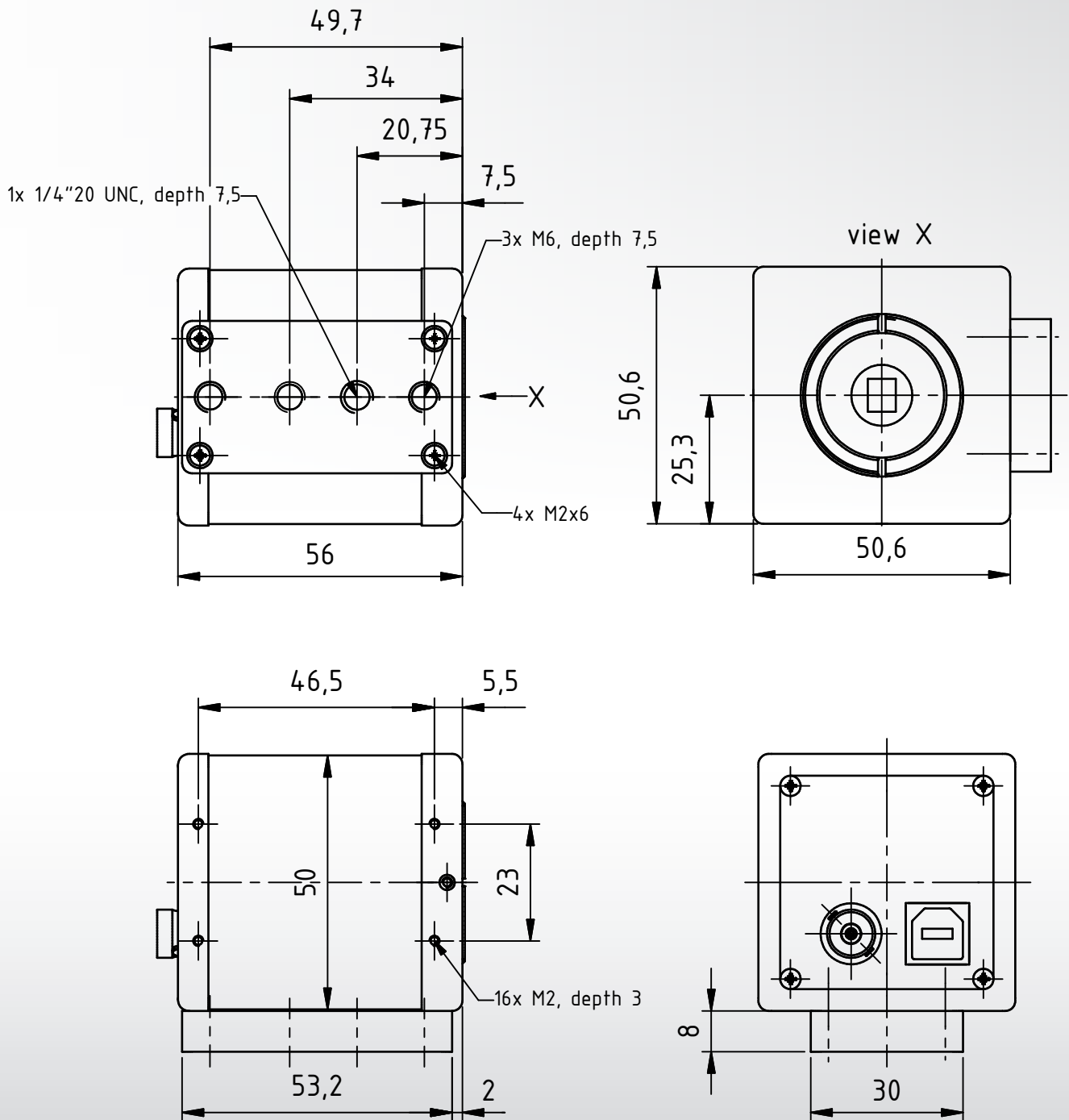
Subject to change

Sony ICX204AL Spectral Response Curve

CCD Sensor in DMK 31BU03



DMK 31BU03 Dimensional Diagram



Dimensions: mm
 Tolerances: DIN ISO 2768m

