

## DMK 23UV024 Monochrome Camera

The Imaging Source "23" Series USB 3.0 Camera



**Only 29×29×43 mm**

Lens not included

The Imaging Source DMK 23UV024 monochrome camera has a USB 3.0 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 Aptina CMOS MT9V024 sensor. With up to 115 images per second, the DMK 23UV024 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 23UV024 to be integrated in to common machine vision software libraries, such as LabView and OpenCV. Furthermore, we author and support open source Linux drivers and software (Apache License 2.0) to integrate the camera into popular distributions. Download the Linux source code at GitHub.

### Features

- USB 3.0 interface
- 1/3 inch Aptina CMOS sensor (MT9V024)
- 752×480 (0.4 MP)
- Up to 100 images per second
- Global shutter
- Trigger and I/O inputs
- Only 29×29×43 mm
- Compatible to C and CS mount lenses
- Manufactured by The Imaging Source
- Ships with Windows and Linux 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 3.0 cable in various lengths
- 3 m USB 3.0 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

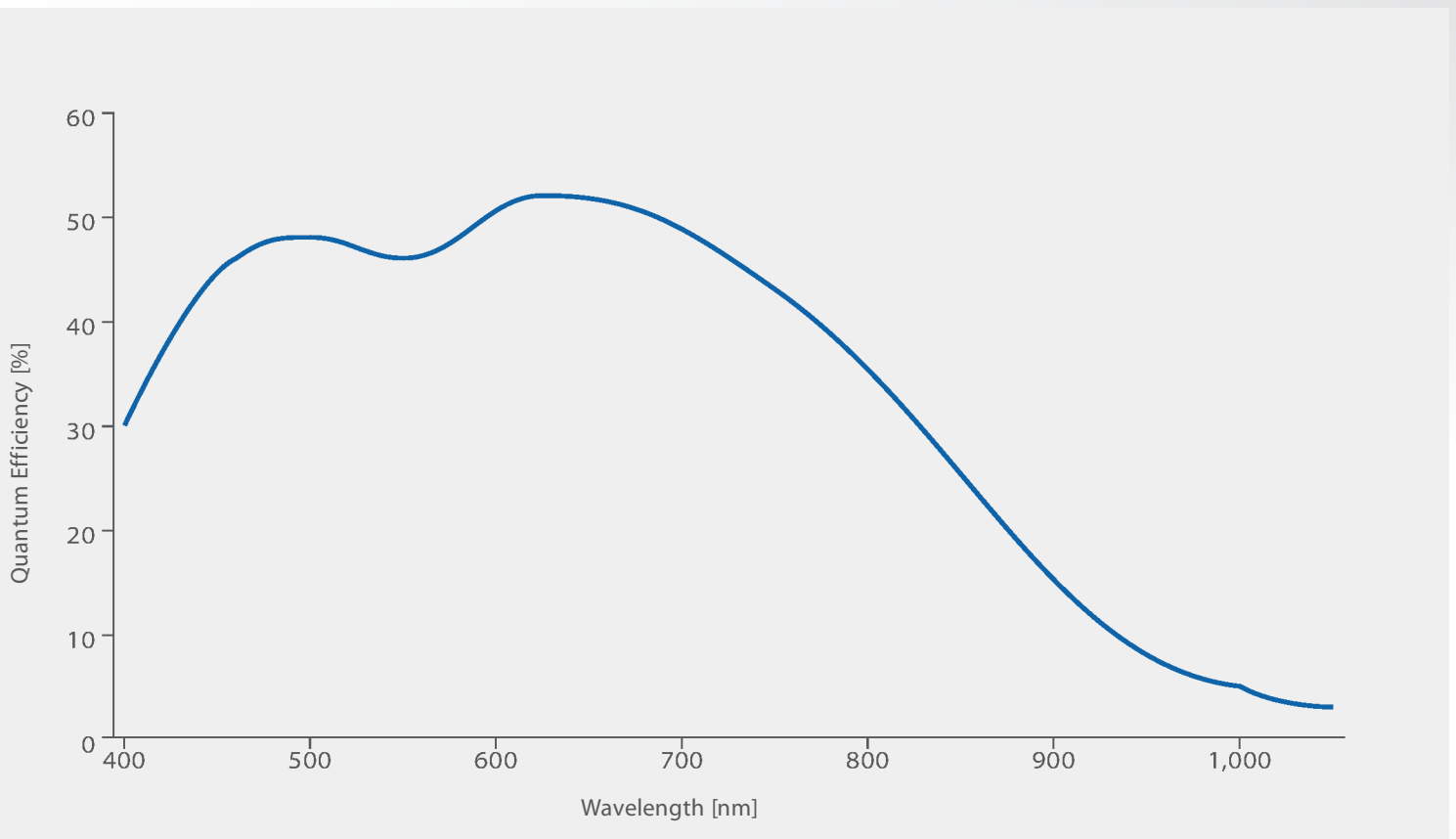
IC Capture - image acquisition, IC Measure - manual on-screen image measurement and image acquisition, IC Fullscreen Presenter, IC Line Profiler, Footswitch software for IC Capture, Scan2Docx, Scan2Docx OCR, Scan2Voice

## DMK 23UV024 Specification

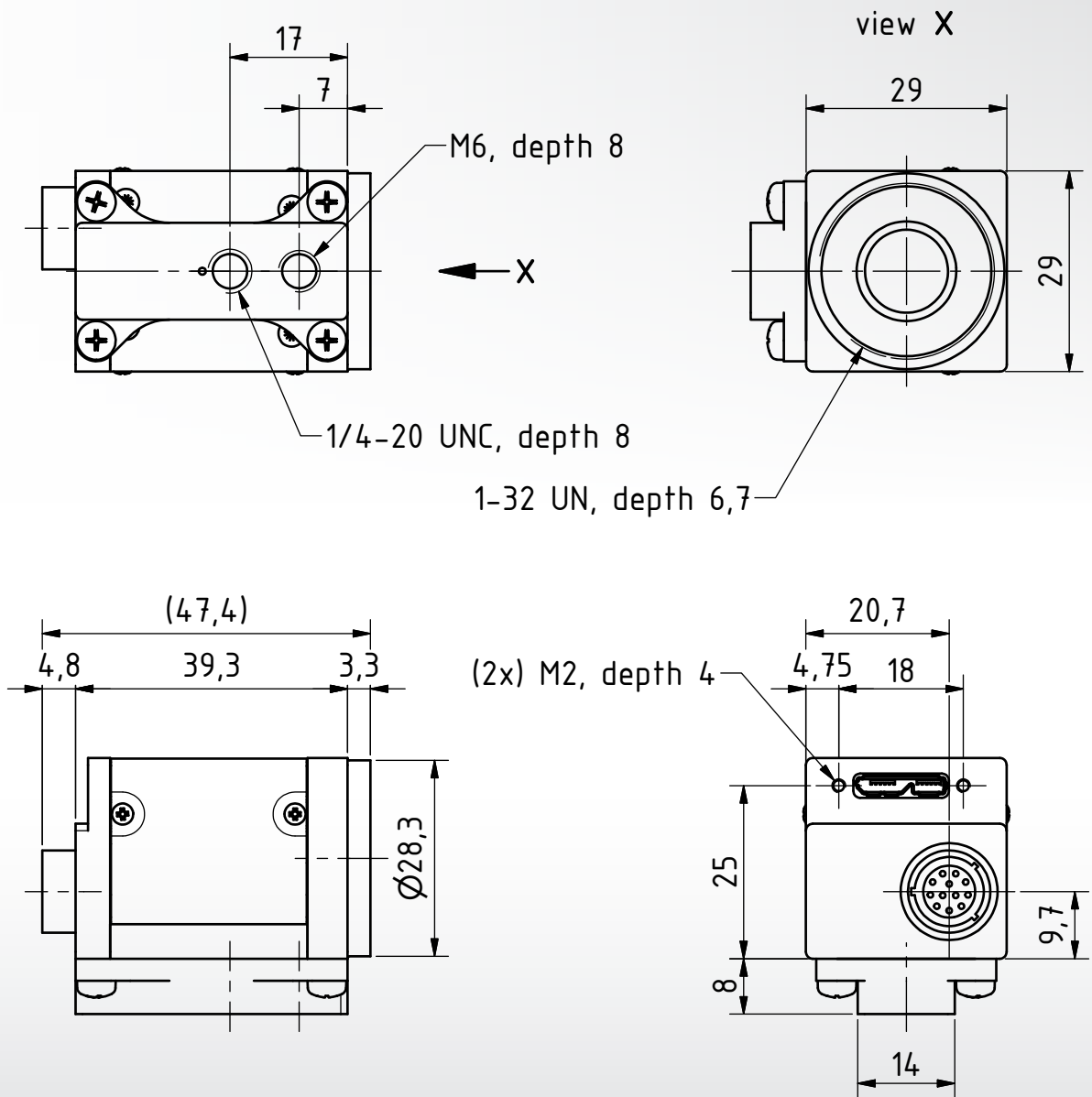
GENERAL BEHAVIOR	
Sensitivity	0.015 lx
Dynamic range	8/12 bit
Video formats @ frame rate (maximum)	752×480 (0.4 MP) Y800 @ 100 fps 752×480 (0.4 MP) Y16 @ 100 fps 640×480 (0.3 MP) Y800 @ 115 fps 640×480 (0.3 MP) Y16 @ 115 fps
INTERFACE (OPTICAL)	
IR cut filter	✘
Sensor type	CMOS
Sensor specification	Aptina <a href="#">MT9V024</a>
Shutter	global
Format	1/3 inch
Resolution (maximum)	H: 752 px, V: 480 px
Frame rate (maximum)	115 fps
Pixel size	H: 6 μm, V: 6 μm
Lens mount	C/CS
INTERFACE (ELECTRICAL)	
Interface	USB 3.0
Supply voltage	4.5 VDC to 5.5 VDC
Current consumption	approx 250 mA @ 5 VDC
Auto iris control	✘
Trigger	✓
I/Os	✓
INTERFACE (MECHANICAL)	
Dimensions	H: 29 mm, W: 29 mm, L: 43 mm
Mass	65 g
ADJUSTMENTS	
Shutter	1/66,667 s to 1/4 s
Gain	0 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	

## Aptina MT9V024 Spectral Response Curve

CMOS Sensor in DMK 23UV024



## DMK 23UV024 Dimensional Diagram



Dimensions: mm  
Tolerances: DIN ISO 2768m

