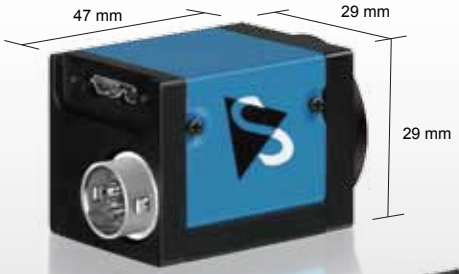
The Imaging Source "USB 3.0" Series Cameras

DMK 23UV024 / DFK 23UV024



The Imaging Source DMK 23UV024 (monochrome) and DFK 23UV024 (color) USB 3.0 cameras are the perfect solution for many industrial automation, quality assurance, security, surveillance, and medical applications. Utilizing the very sensitive Aptina WVGA MT9V024 monochrome and color global shutter CMOS sensors, these cameras feature a variety of input, output, strobe, and trigger options via an external 6-pin Hirose port. With up to 100 fps and a trigger delay of less than 5 micro seconds, the DMK 23UV024 and DFK 23UV024 USB 3.0 cameras from The Imaging Source are a very low cost, yet highly versatile imaging solution.

Included :

- Camera, CS to C mount adapter and tripod mount
- Drivers compatible to WDM, DirectShow, DirectX®, TWAIN, ActivVisionTools, HALCON, VfW and LabVIEW® for Windows 7/8, Windows Vista, and Windows XP
- IC Capture camera control and aquisition software for Windows 7/8, Windows Vista, and Windows XP (32 and 64 bit versions)
- IC Imaging Control Software Development Kit (SDK) including a .NET component, an ActiveX component, and a C++ class library for Windows

Features :

- Variable trigger (4µs to 1s)
- Digital I/O strobe
- CS with C mount adapter
- Binning and ROI (CMOS only)
- Optional external DC driven auto iris controller

Accessories :

- CS to M12 adapters
- C, CS, and M12 lenses
- 6-pin Hirose trigger cable

Specification : DMK 23UV024 (Monochrome)

GENERAL BEHAVIOR	
Video formats @ Frame rate	752x480 Y800 @ 60, 30, 15, 7.5, 3.75 fps 752x480 Y16 @ 60, 30, 15, 7.5, 3.75 fps
Sensitivity	0.015 lx
Dynamic range	8 / 12 bit

INTERFACE (OPTICAL)	
IR cut filter	no
Sensor specification	MT9V024
Shutter	Global
Format	1/3 "
Resolution	H: 752, V: 480
Pixel size	H: 6.0 µm, V: 6.0 µm
Lens mount	C/CS

INTERFACE (ELECTRICAL)	
Supply voltage	4.5 to 5.5 VDC
Current consumption	approx. 500 mA at 5 VDC

INTERFACE (MECHANICAL)	
Dimensions	H: 29 mm, W: 29 mm, L: 47 mm
Mass	65 g

ADJUSTMENTS (MANUAL)	
Shutter	1/100,000 to 30 s
Gain	0 to 36 dB

ADJUSTMENTS (AUTOMATIC)	
Shutter	1/100,000 to 30 s
Gain	0 to 36 dB

ENVIRONMENTAL	
Max. temperature (operation)	-5 °C to 45 °C
Max. temperature (storage)	-20 °C to 60 °C
Max. humidity (operation)	20 % to 80 % non-condensing
Max. humidity (storage)	20 % to 95 % non-condensing

Specification : DFK 23UV024 (Color)

GENERAL BEHAVIOR	
Video formats @ Frame rate	752x480 RGB32 @ 60, 30, 15, 7.5, 3.75 fps 752x480 Y800 @ 60, 30, 15, 7.5, 3.75 fps 752x480 Y16 @ 60, 30, 15, 7.5, 3.75 fps
Sensitivity	0.05 lx
Dynamic range	8 / 12 bit

INTERFACE (OPTICAL)	
IR cut filter	yes
Sensor specification	MT9V024
Shutter	Global
Format	1/3 "
Resolution	H: 752, V: 480
Pixel size	H: 6.0 µm, V: 6.0 µm
Lens mount	C/CS

INTERFACE (ELECTRICAL)	
Supply voltage	4.5 to 5.5 VDC
Current consumption	approx. 500 mA at 5 VDC

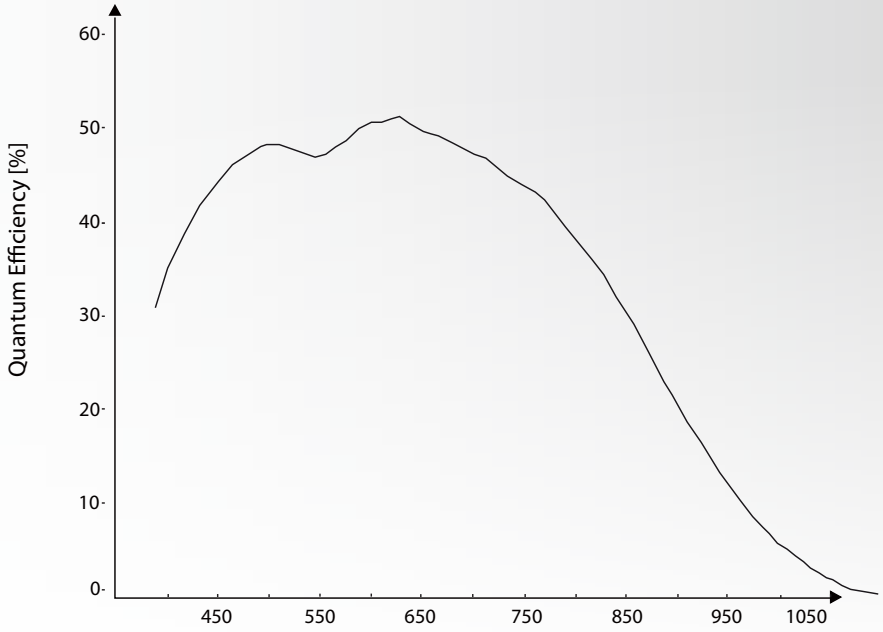
INTERFACE (MECHANICAL)	
Dimensions	H: 29 mm, W: 29 mm, L: 47 mm
Mass	65 g

ADJUSTMENTS (MANUAL)	
Shutter	1/100,000 to 30 s
Gain	0 to 36 dB
White balance	-2 dB to +6 dB

ADJUSTMENTS (AUTOMATIC)	
Shutter	1/100,000 to 30 s
Gain	0 to 36 dB
White balance	-2 dB to +6 dB

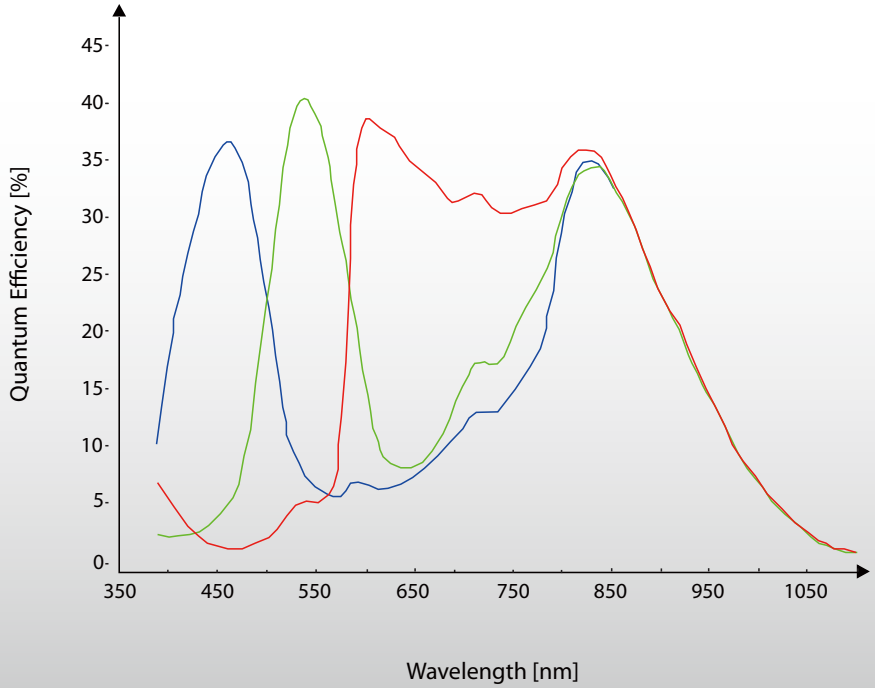
ENVIRONMENTAL	
Max. temperature (operation)	-5 °C to 45 °C
Max. temperature (storage)	-20 °C to 60 °C
Max. humidity (operation)	20 % to 80 % non-condensing
Max. humidity (storage)	20 % to 95 % non-condensing

Monochrome Spectral Response Curve



Sensor: Micron MT9V024 M - courtesy of Aptina Deutschland GmbH

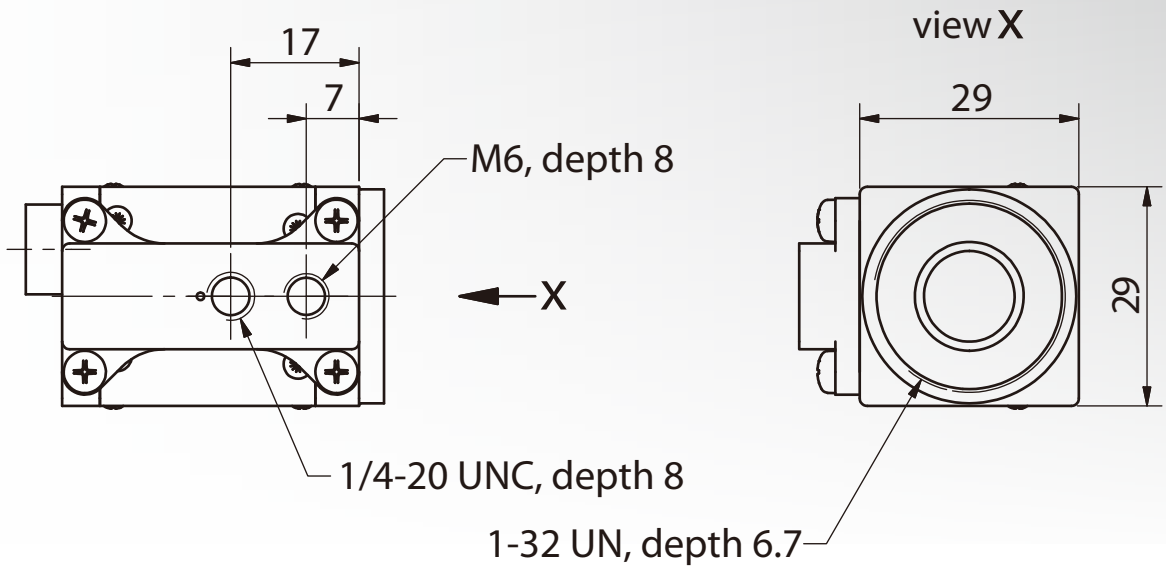
Color Spectral Response Curve

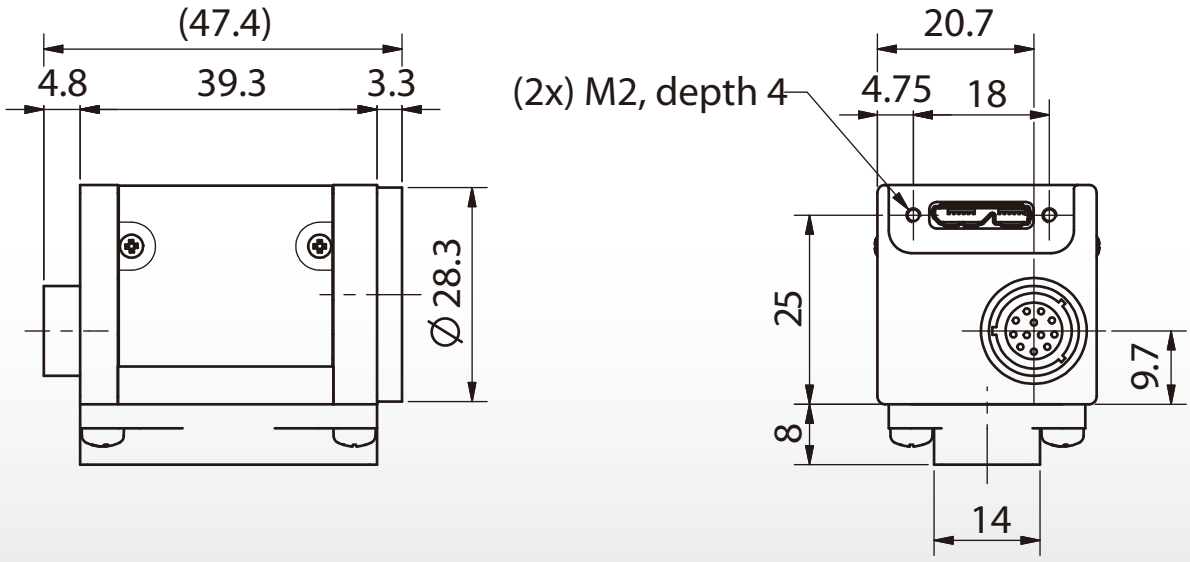


Sensor: Micron MT9V024 C - courtesy of Aptina Deutschland GmbH

DMK 23UV024 / DFK 23UV024 Dimensional Diagram

(with tripod adapter)

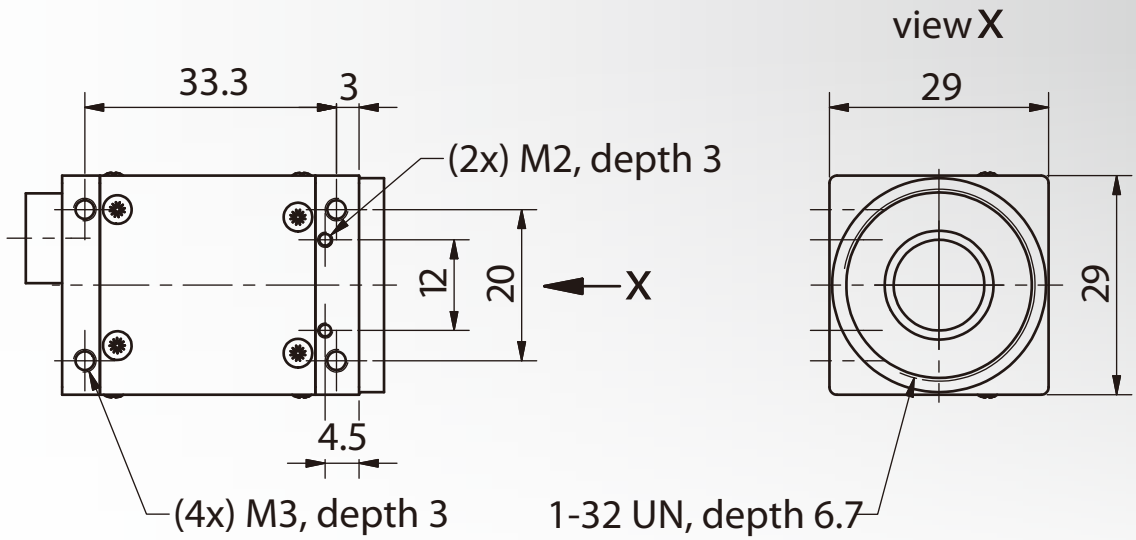


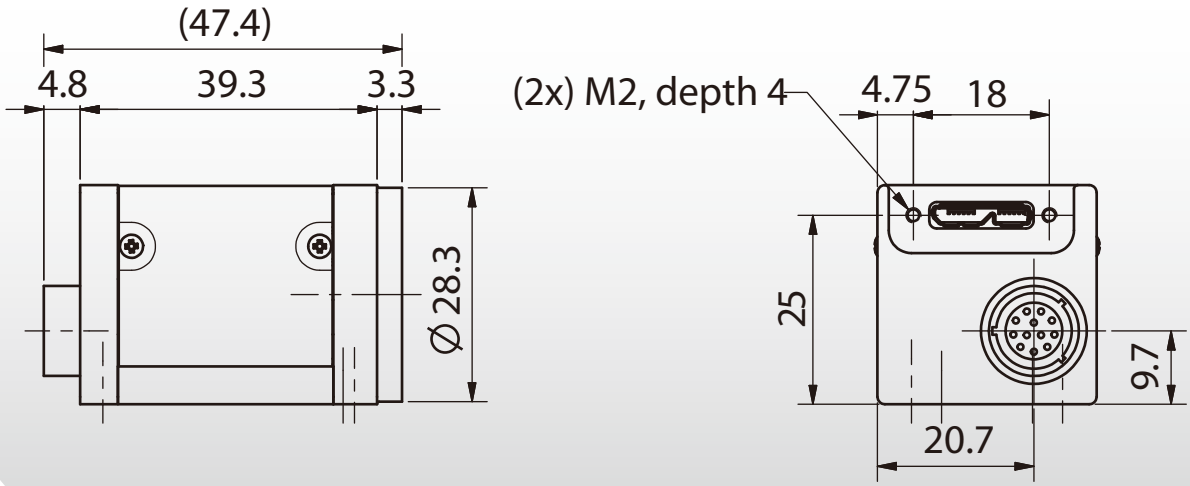


Dimensions: mm
Tolerances: DIN ISO 2768m

DMK 23UV024 / DFK 23UV024 Dimensional Diagram

(without tripod adapter)





Dimensions: mm
Tolerances: DIN ISO 2768m

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Machine Vision – Designed in Germany

Established in 1990, The Imaging Source is one of the leading manufacturers of industrial cameras, frame grabbers and video converters for production automation, quality assurance, logistics, medicine, science, security and traffic surveillance.

The Imaging Source manufactures a comprehensive range of cameras with USB 3.0, USB 2.0, GigE, 1394b and 1394a interfaces. Their products are renowned for being innovative, high quality and constantly meeting the performance requirements of demanding industrial applications.

Decreasing Integration Costs and Attractive Pricing

The development of our hardware components is driven by more than 20 years of developing modern software components. This intimate interplay guarantees that our products work in perfect harmony with one another. We are driven by manufacturing products that have attractive pricing, low integration costs and longevity.

High-Quality and Ease of Use

All cameras, frame grabbers and video converters, manufactured by The Imaging Source, are the result of decades of experience, uncompromisingly high quality standards, and constant development by global teams consisting of experts and end-users.

Developers and system engineers prefer The Imaging Source cameras due to their ease of system integration. With branches and a strong network of distributors in Europe, USA and Asia, we are available for our customers across all time zones.

The Imaging Source Support

What really separates The Imaging Source from its competitors is the unsurpassed customer service and technical support we provide for our products.

Industrial cameras consist of two basic components: Hardware and software. We guarantee fast and efficient support for both components through our highly skilled support representatives and expert product developers. Not only will we provide support regarding technical issues, but we will also work to provide assistance with software implementation questions.

EASY SOFTWARE INTEGRATION

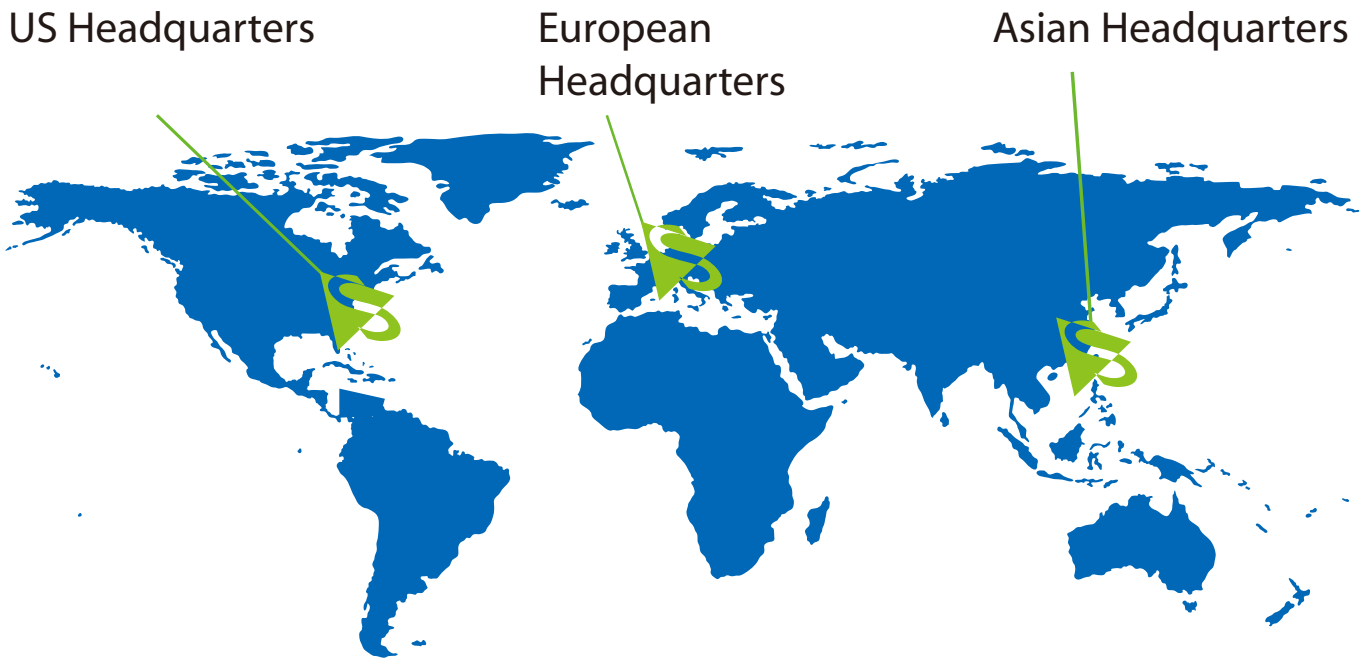
All The Imaging Source cameras, frame grabbers and video converters are shipped with the SDK IC Imaging Control.

Using this SDK, it is easy for programmers to integrate these devices into their own applications.

The included source code of numerous programming examples helps programmers to get started quickly.

www.imagingcontrol.com

THE IMAGINGSOURCE
TECHNOLOGY BASED ON STANDARDS



PRESENT ALL OVER THE WORLD

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