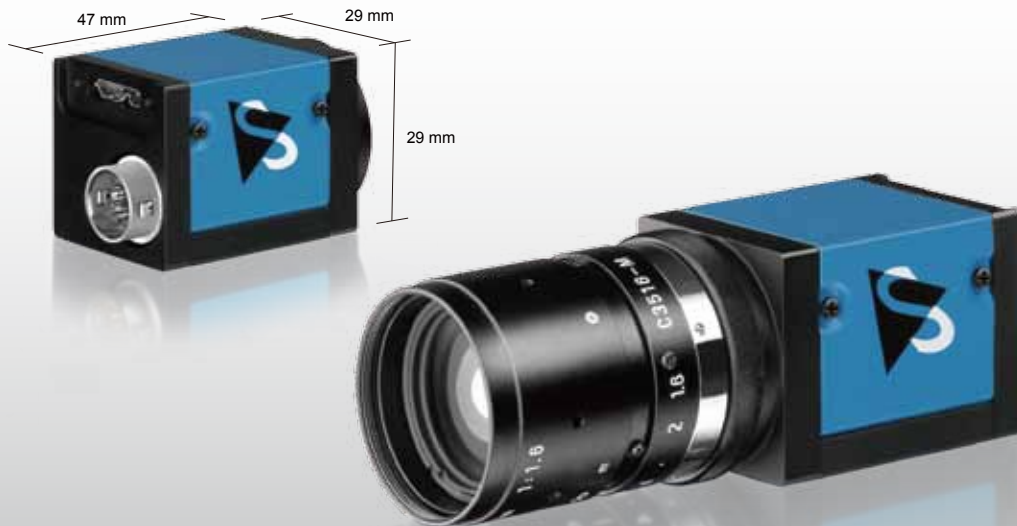


The Imaging Source "USB 3.0" Series Cameras

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 acquisition 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 (4 μ s 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

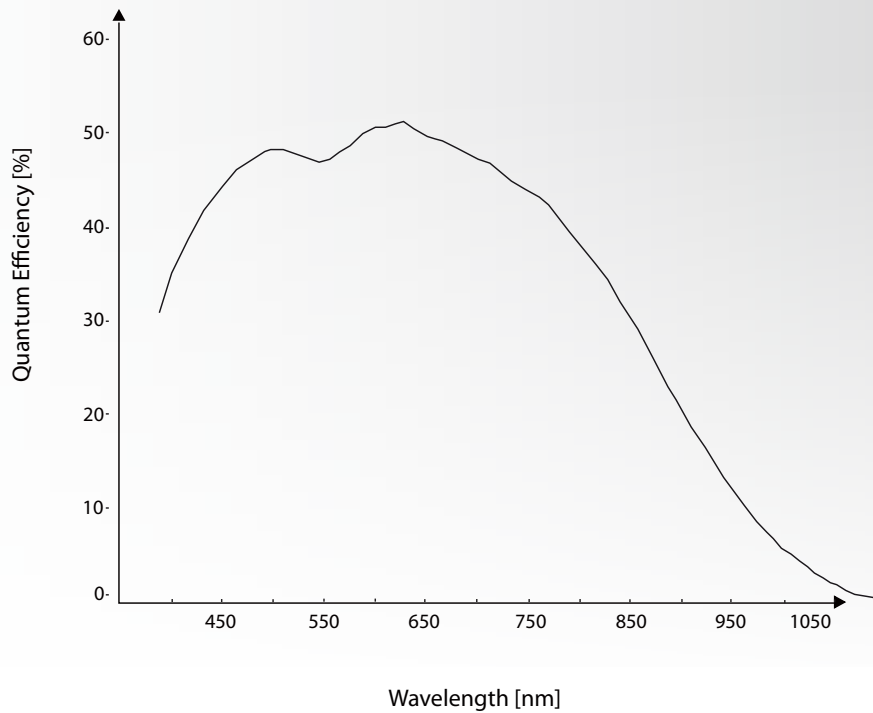
ADJUSTMENTS (AUTOMATIC)

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

ENVIRONMENTAL

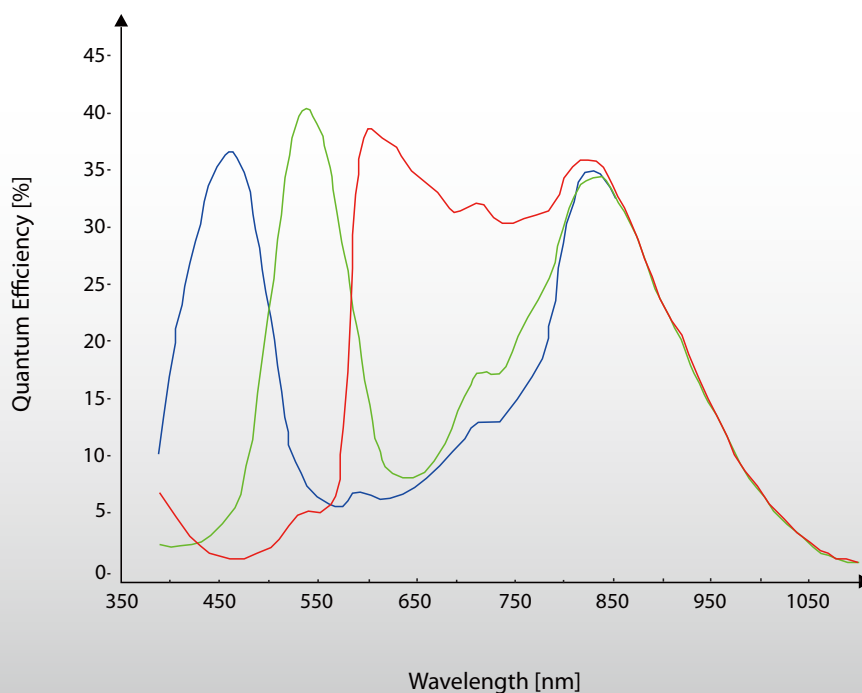
Max. temperature (operation)	-5 °C to 45 °C
Max. temperature (storage)	-20 °C to 60 °C
Max. humidity (operation)	20 % to 80 % non-condensing
Max. humidity (storage)	20 % to 95 % non-condensing

Monochrome Spectral Response Curve



Sensor: Micron MT9V024 M - courtesy of Aptina Deutschland GmbH

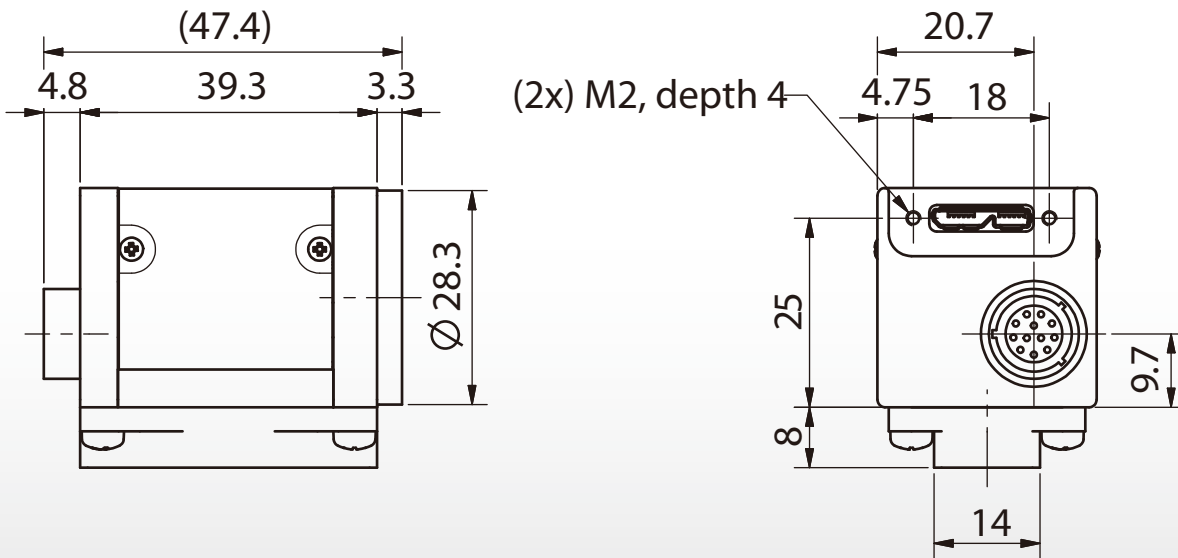
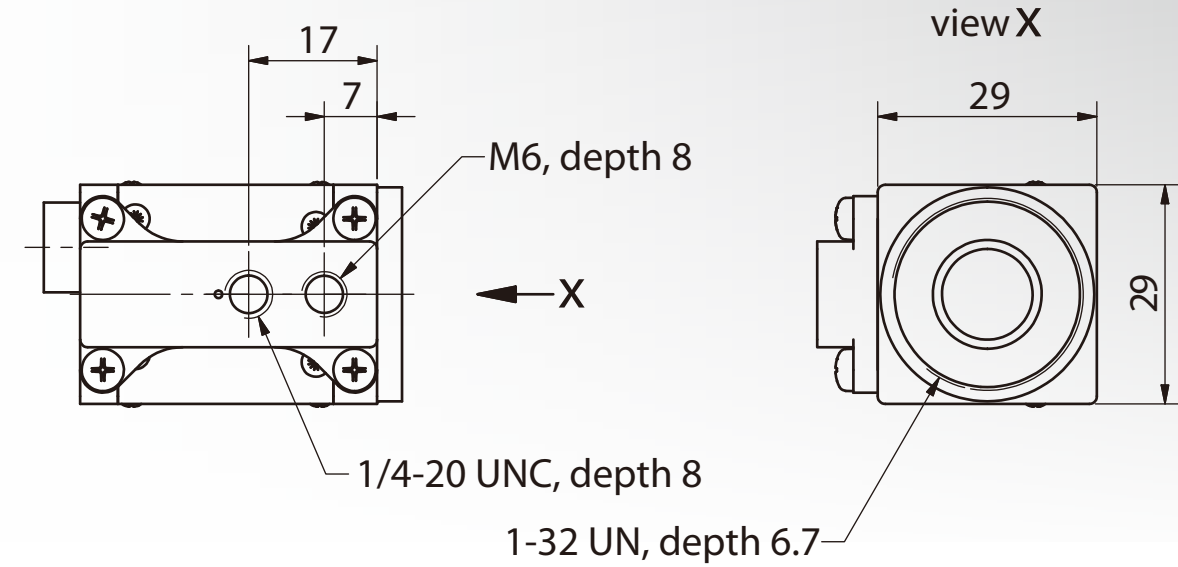
Color Spectral Response Curve



Sensor: Micron MT9V024 C - courtesy of Aptina Deutschland GmbH

DMK 23UV024 / DFK 23UV024 Dimensional Diagram

(with tripod adapter)

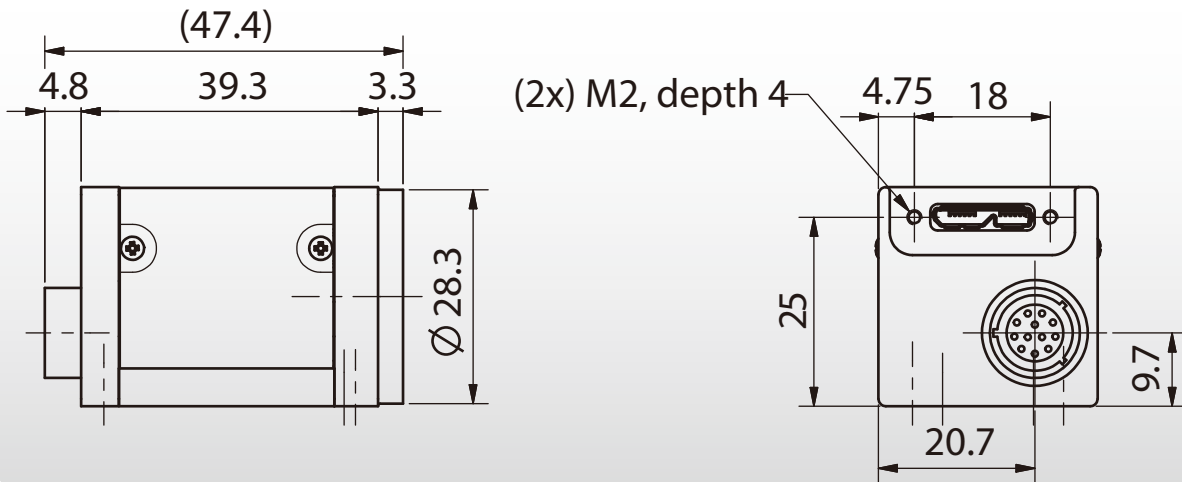
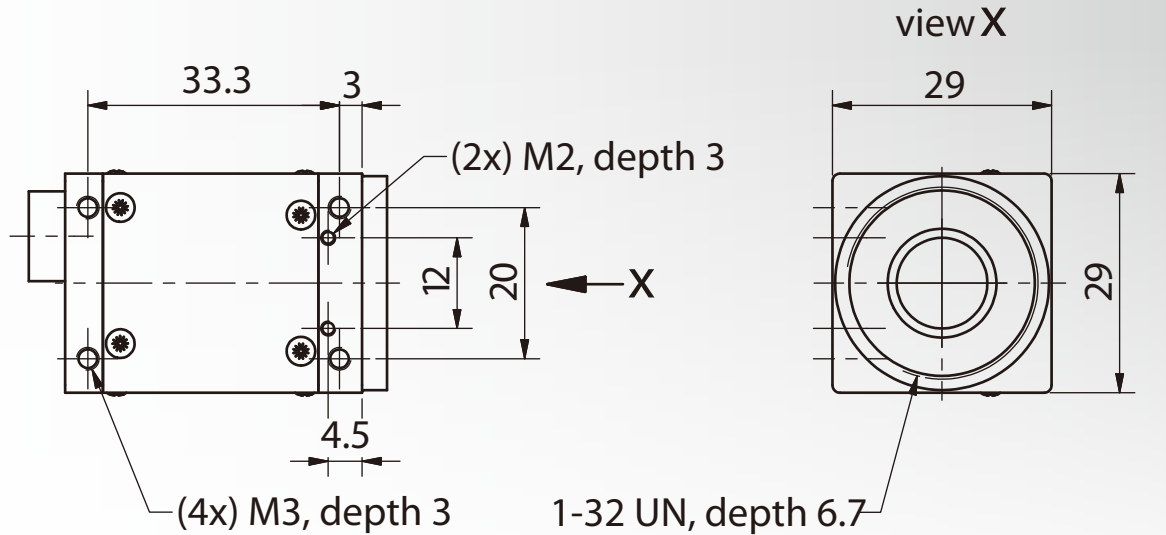


Dimensions: mm
Tolerances: DIN ISO 2768m



DMK 23UV024 / DFK 23UV024 Dimensional Diagram

(without tripod adapter)



Dimensions: mm
 Tolerances: DIN ISO 2768m

