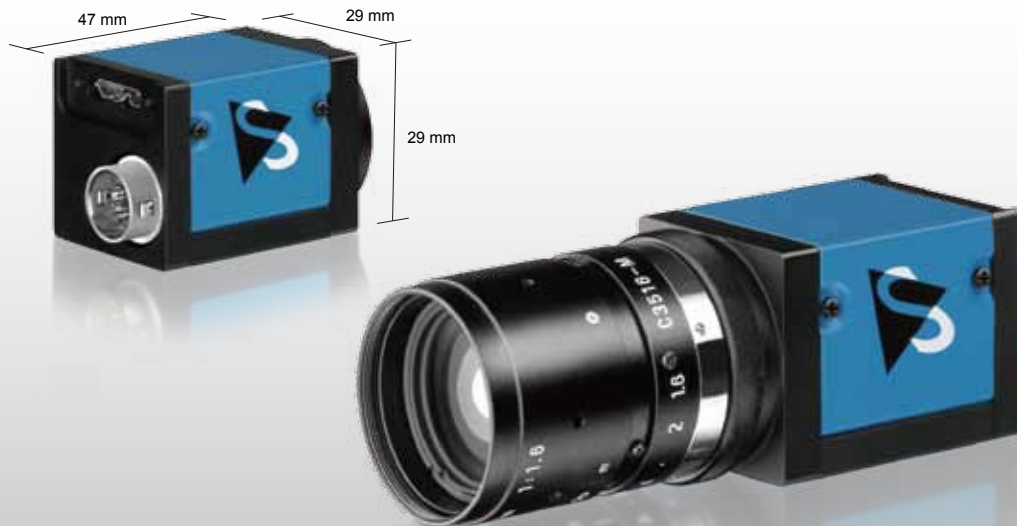


The Imaging Source "USB 3.0" Series Cameras

DMK 23U274 / DFK 23U274



The Imaging Source DMK 23U274 (monochrome) and DFK 23U274 (color) USB 3.0 cameras are the perfect solution for many industrial automation, quality assurance, security, surveillance, and medical applications. Utilizing the very sensitive SONY Ex View HAD ICX 274ALA/AQA monochrome and color CCD sensors, these cameras feature a variety of input, output, strobe, and trigger options via a 6-pin external Hirose port. With up to 20 fps and a trigger delay of less than 5 micro seconds, the DMK 23U274 and DFK 23U274 USB 3.0 cameras from The Imaging Source are a 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 1 s)
- Digital I/O strobe
- CS with C mount adapter
- Optional external DC driven auto iris controller

Accessories :

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

Specification : DMK 23U274 (Monochrome)

GENERAL BEHAVIOR

Video formats @ Frame rate	1600x1200 Y800 @ 20, 15, 7.5, 3.75 fps 1600x1200 Y16 @ 20, 15, 7.5, 3.75 fps
Sensitivity	0.015 lx
Dynamic range	8 / 12 bit

INTERFACE (OPTICAL)

IR cut filter	no
Sensor specification	ICX274AL
Type	progressive scan
Format	1/1.8 "
Resolution	H: 1600, V: 1200
Pixel size	H: 4.4 μm , V: 4.4 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 23U274 (Color)

GENERAL BEHAVIOR	
Video formats @ Frame rate	1600x1200 RGB32 @ 20, 15, 7.5, 3.75 fps 1600x1200 Y800 @ 20, 15, 7.5, 3.75 fps 1600x1200 Y16 @ 20, 15, 7.5, 3.75 fps
Sensitivity	0.05 lx
Dynamic range	8 / 12 bit

INTERFACE (OPTICAL)	
IR cut filter	yes
Sensor specification	ICX274AQ
Type	progressive scan
Format	1/1.8 "
Resolution	H: 1600, V: 1200
Pixel size	H: 4.4 μm , V: 4.4 μm
Lens mount	C/CS

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

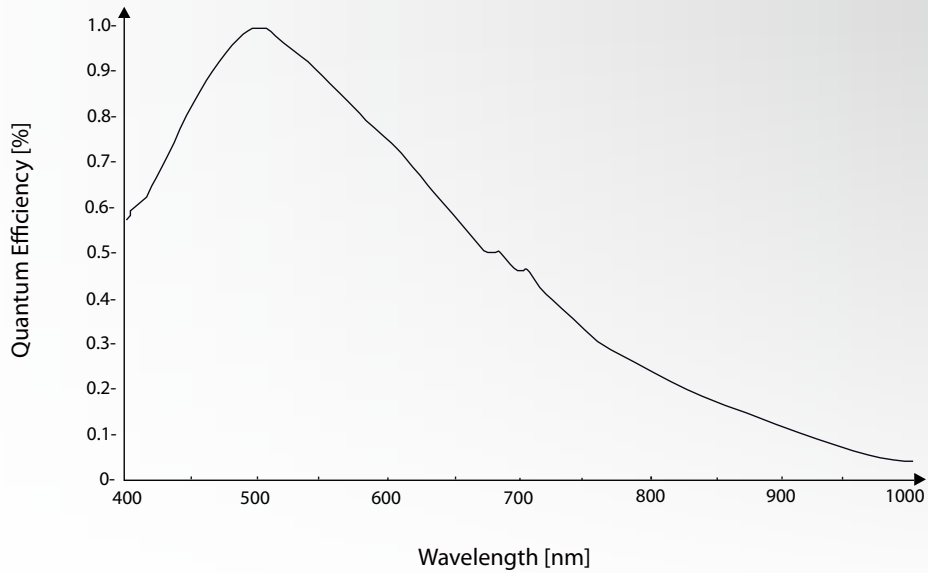
INTERFACE (MECHANICAL)	
Dimensions	H: 29 mm, W: 29 mm, L: 47 mm
Mass	65 g

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

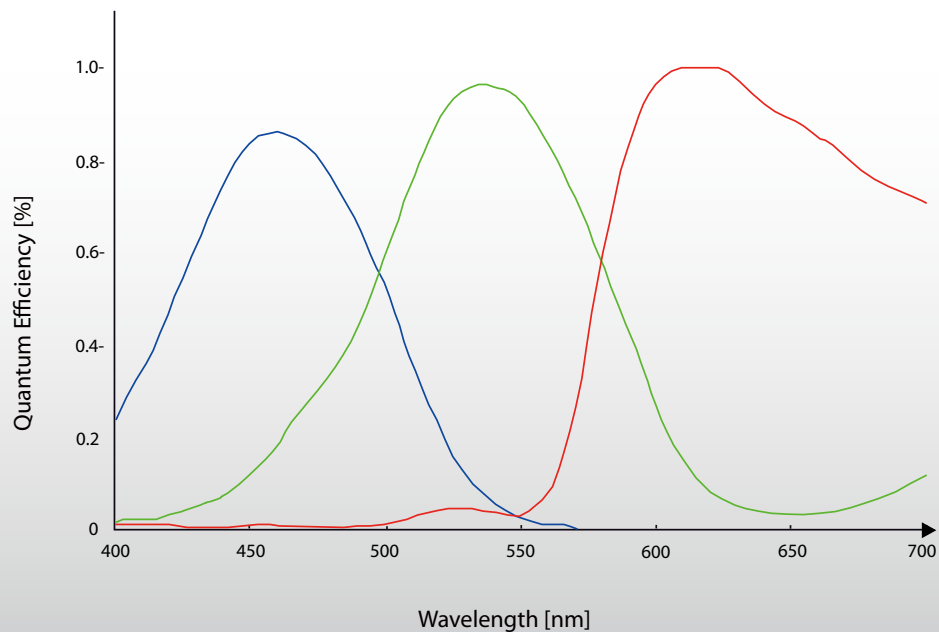
ENVIRONMENTAL	
Max. temperature (operation)	-5 °C to 45 °C
Max. temperature (storage)	-20 °C to 60 °C
Max. humidity (operation)	20 % to 80 % non-condensing
Max. humidity (storage)	20 % to 95 % non-condensing

Monochrome Spectral Response Curve



Sensor: Sony ICX 274AL - courtesy of SONY Deutschland GmbH

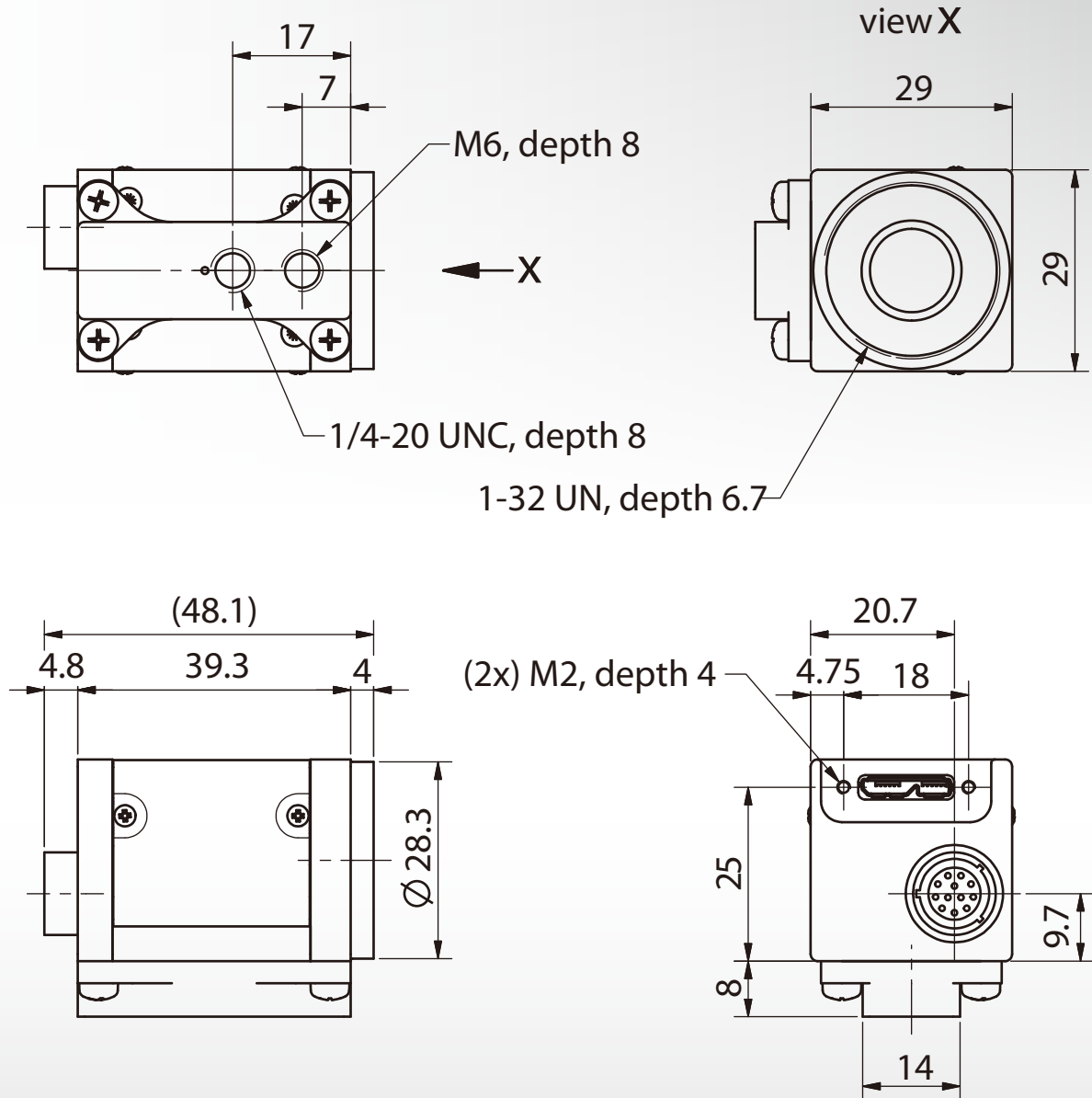
Color Spectral Response Curve



Sensor: Sony ICX 274AQ - courtesy of SONY Deutschland GmbH

DMK 23U274 / DFK 23U274 Dimensional Diagram

(with tripod adapter)

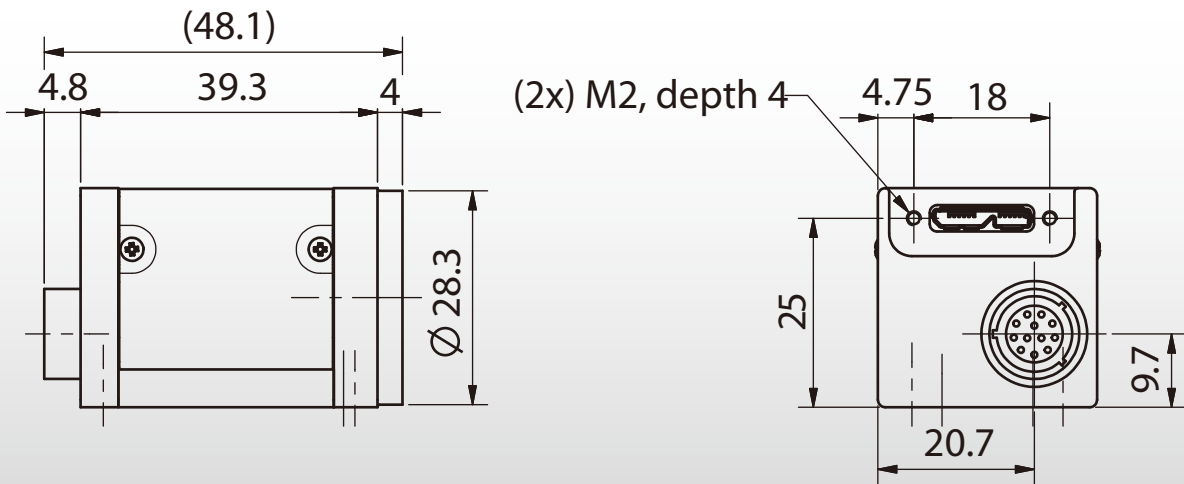
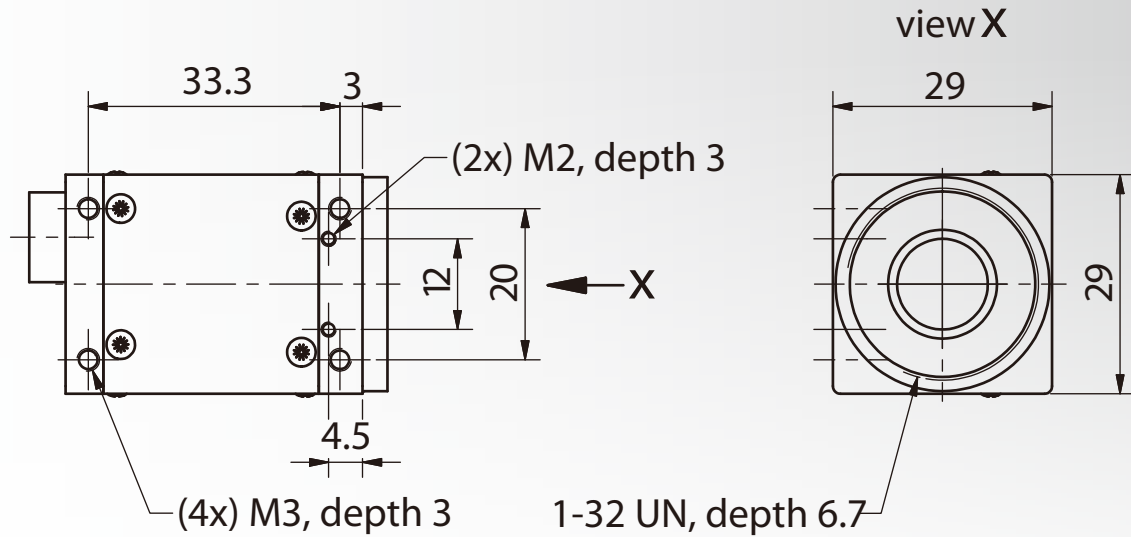


Dimensions: mm
Tolerances: DIN ISO 2768m



DMK 23U274 / DFK 23U274 Dimensional Diagram

(without tripod adapter)



Dimensions: mm
Tolerances: DIN ISO 2768m



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All weights and dimensions are approximate. Unless otherwise specified the lenses shown in the context of cameras are not shipped with these cameras.