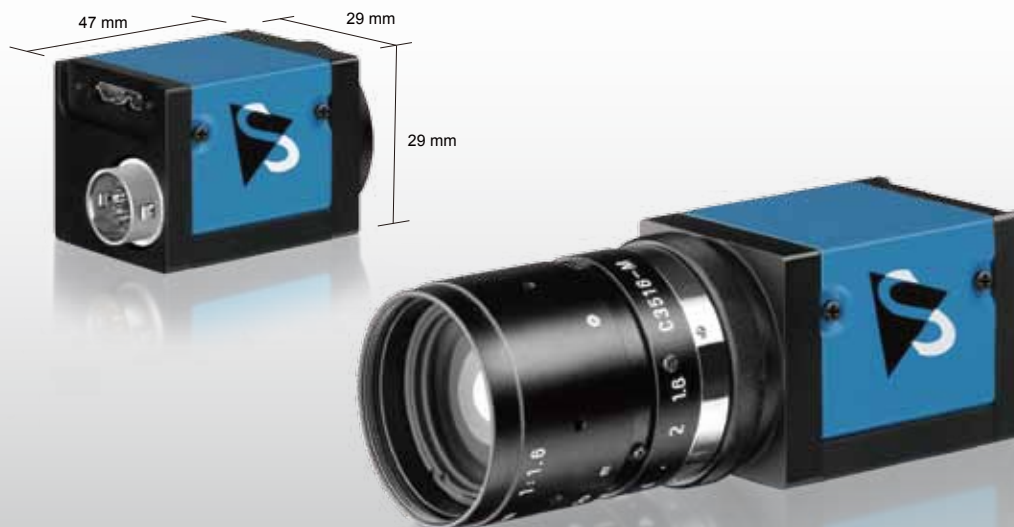


The Imaging Source “USB 3.0” Series Cameras

DMK 23U618 / DFK 23U618



The Imaging Source DMK 23U618 (monochrome) and DFK 23U618 (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 618ALA/AQA monochrome and color CCD sensors, these cameras feature a variety of input, output, strobe, and trigger options via an external 6-pin Hirose port. With up to 120 fps and a trigger delay of less than 5 micro seconds, the DMK 23U618 and DFK 23U618 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 (4μs 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 23U618 (Monochrome)

GENERAL BEHAVIOR

Video formats @ Frame rate	640x480 Y800 @ 120, 90, 60, 30, 15, 7.5, 3.75 fps 640x480 Y16 @ 120, 90, 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	ICX618ALA
Type	progressive scan
Format	1/4 "
Resolution	H: 640, V: 480
Pixel size	H: 5.6 μ m, V: 5.6 μ m
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 23U618 (Color)

GENERAL BEHAVIOR

Video formats @ Frame rate	640x480 RGB32 @ 120, 90, 60, 30, 15, 7.5, 3.75 fps
	640x480 Y800 @ 120, 90, 60, 30, 15, 7.5, 3.75 fps
	640x480 Y16 @ 120, 90, 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	ICX618AQA
Type	progressive scan
Format	1/4 "
Resolution	H: 640, V: 480
Pixel size	H: 5.6 µm, V: 5.6 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

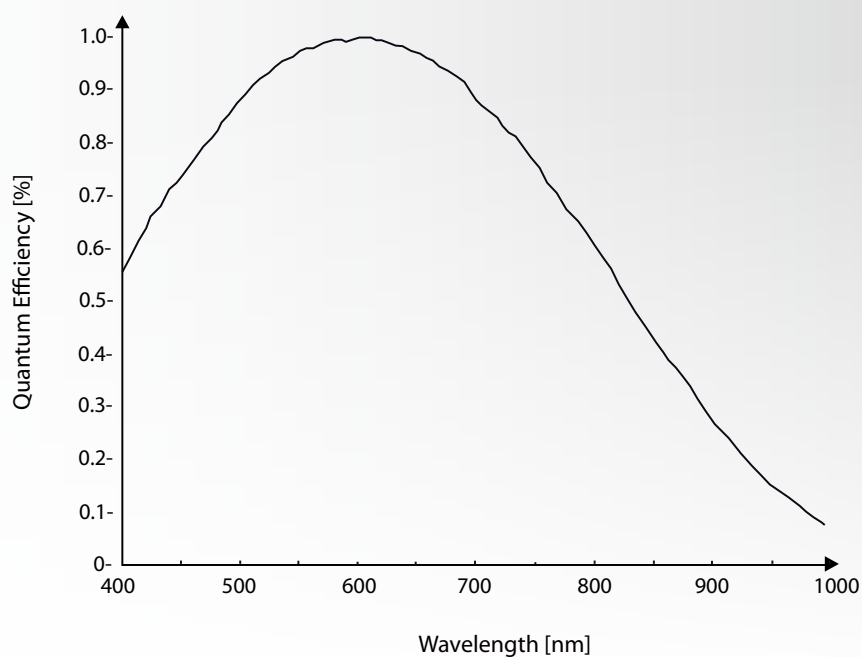
ADJUSTMENTS (AUTOMATIC)

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

ENVIRONMENTAL

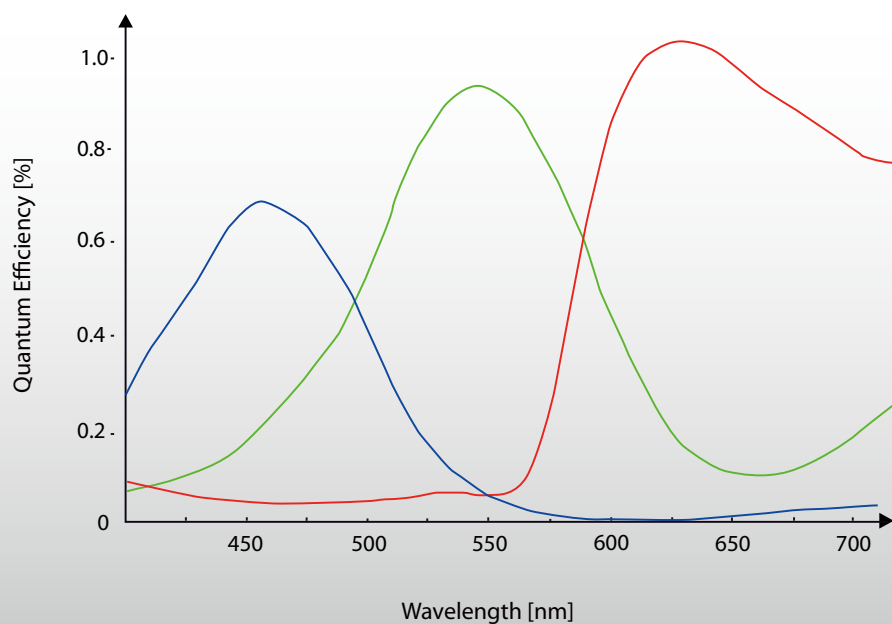
Max. temperature (operation)	-5 °C to 45 °C
Max. temperature (storage)	-20 °C to 60 °C
Max. humidity (operation)	20 % to 80 % non-condensing
Max. humidity (storage)	20 % to 95 % non-condensing

Monochrome Spectral Response Curve



Sensor: Sony ICX 618 ALA - courtesy of SONY Deutschland GmbH

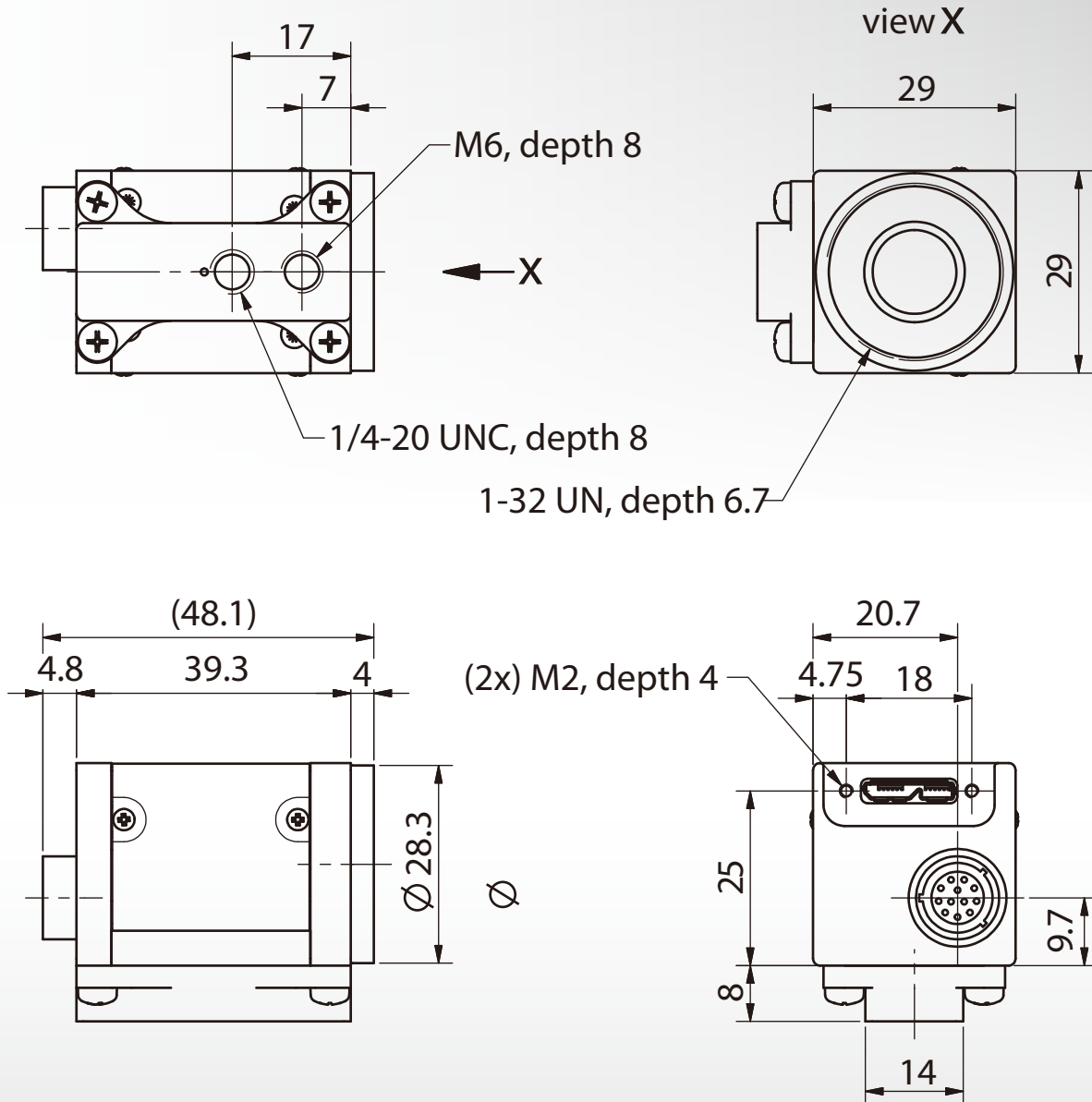
Color Spectral Response Curve



Sensor: Sony ICX 618 AQA - courtesy of SONY Deutschland GmbH

DMK 23U618 / DFK 23U618 Dimensional Diagram

(with tripod adapter)

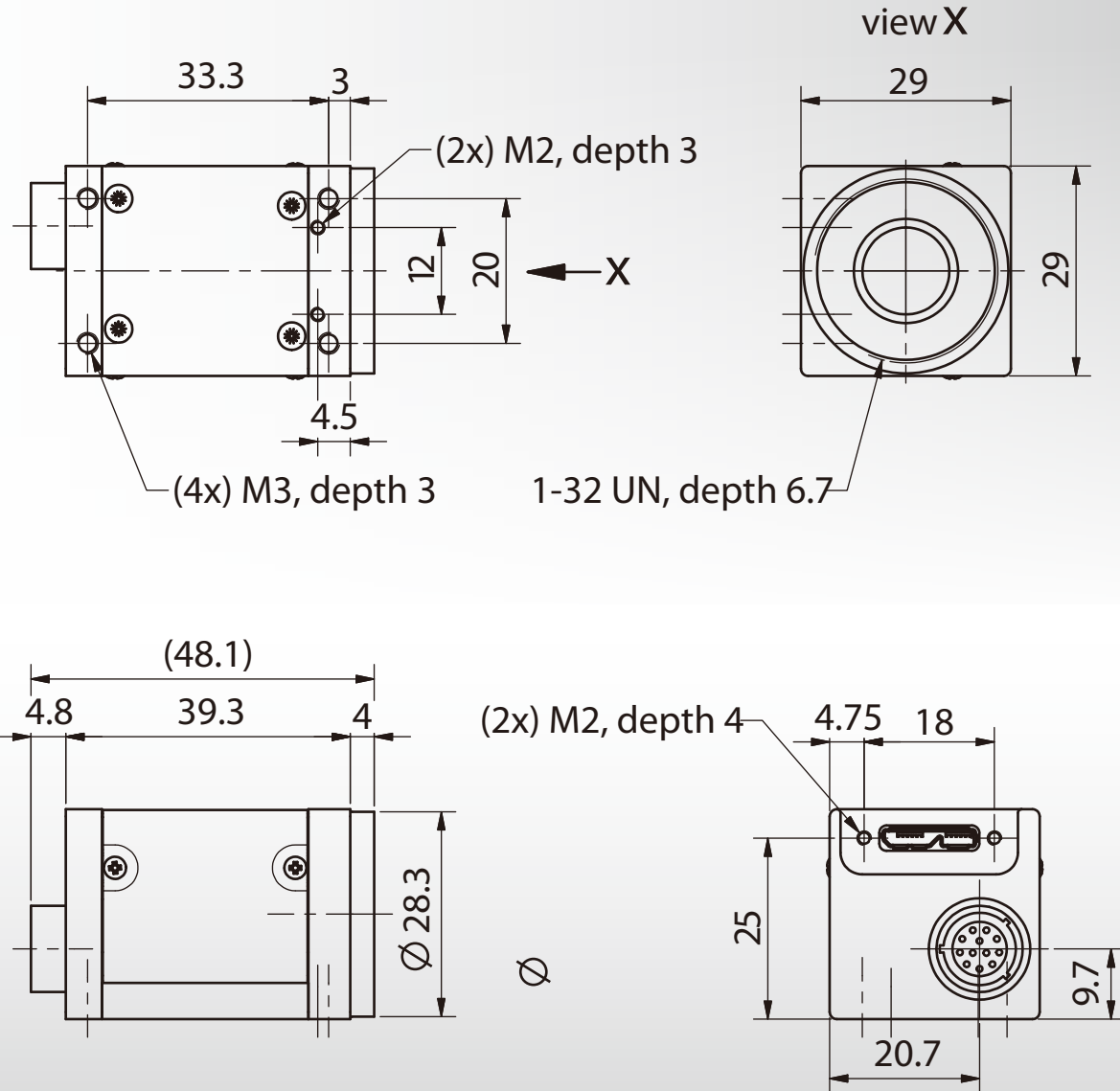


Dimensions: mm
Tolerances: DIN ISO 2768m



DMK 23U618 / DFK 23U618 Dimensional Diagram

(without tripod adapter)



Dimensions: mm
Tolerances: DIN ISO 2768m



Headquarters : The Imaging Source Europe GmbH
Sommerstrasse 36, D-28215 Bremen, Germany
Phone: +49 421-33591-0

North & South America : The Imaging Source, LLC
6926 Shannon Willow Rd., S 400, Charlotte, NC 28226, USA
Phone: +1 704-370-0110

Asia Pacific : The Imaging Source Asia Co., Ltd.
6F-1, No.230, Sec.3, Ba-De Rd., Taipei City 10555, Taiwan
Phone: +886 2-2577-1228

www.theimagingsource.com

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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.