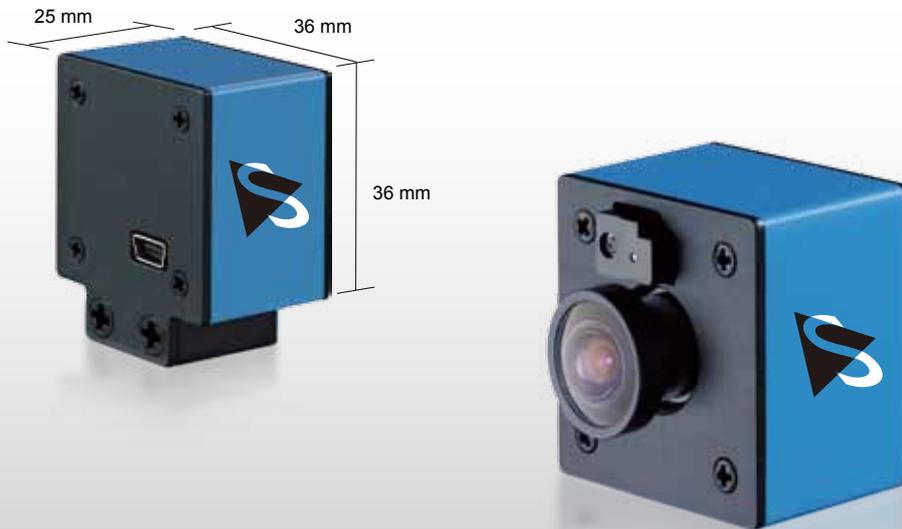


The Imaging Source “AutoFocus” Series USB CMOS Cameras

DMK 72AUC02-F / DFK 72AUC02-F



The Imaging Source DMK 72AUC02-F (monochrome) and DFK 72AUC02-F (color) 5 Megapixel “AutoFocus” cameras are the perfect solution for many industrial automation, quality assurance, security, and surveillance applications. Utilizing the Aptina MT9P031 CMOS sensor with selectable windows and pixel binning capabilities, the accurate 125 micron stepper motor accepts a wide range of M12 lenses for a broad range of uses. The USB 2.0 protocol, the software driven automatic ‘One Push’ focus, and the small housing makes this camera both elegant and versatile.

The Imaging Source 72 series “AutoFocus” cameras are characterized by small housings, ‘One Push’ focus, and very competitive prices.

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 :

- Motorized focus control (via software)
- Manual and automatic control
- For M12 lenses optimized
- Binning and ROI

Accessories :

- M12 lenses
- USB 2.0 cable (1.8m, 3m, 4.5m)

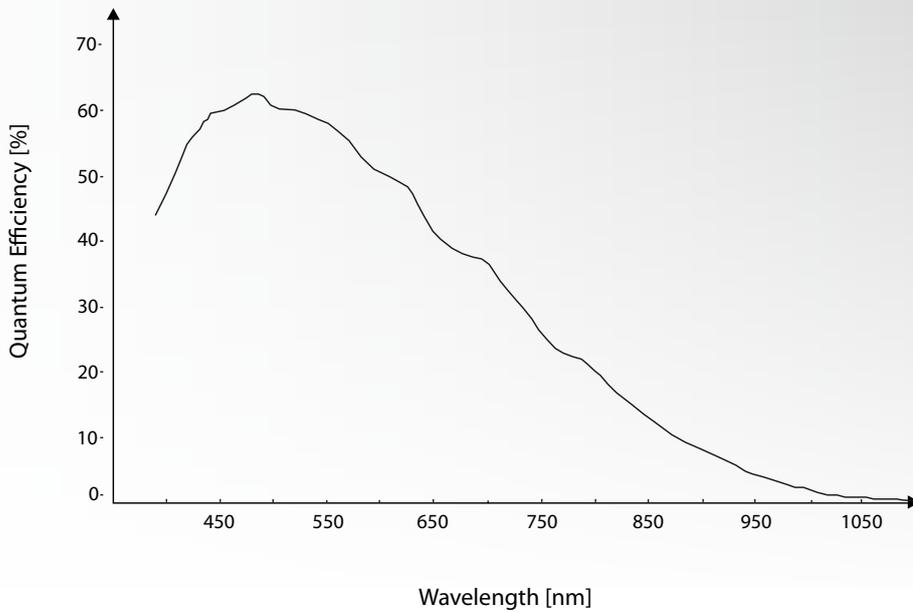
Specification: DMK 72AUC02-F (Monochrome)

GENERAL BEHAVIOR			
Example Configurations			
Resolution	Format	FPS	Sensitivity
2592x1944	1/2.5 "	6	1.4 V/lux-sec
2048x1536	1/3 "	9	1.4 V/lux-sec
1600x1200	1/4 "	13	1.4 V/lux-sec
1280x960	1/4.5 "	19	1.4 V/lux-sec
1280x960	1/2.5 "	15	5.6 V/lux-sec
1024x768	1/5.5 "	27	1.4 V/lux-sec
640x480	1/9 "	52	1.4 V/lux-sec
640x480	1/2.5 "	23	22.4 V/lux-sec
Color format	Y800		
Dynamic range	8 bit		
INTERFACE (OPTICAL)			
IR cut filter	no		
Sensor specification	MT9P031		
Shutter	Rolling		
Format	1/2.5 "		
Resolution	H: 2592, V: 1944		
Pixel size	H: 2.2 μ m, V: 2.2 μ m		
Lens mount	M12x0.5		
INTERFACE (ELECTRICAL)			
Supply voltage	4.5 to 5.5 VDC		
Current consumption	approx. 250 mA at 5 VDC		
INTERFACE (MECHANICAL)			
Dimensions	H: 36 mm, W: 36 mm, L: 25 mm		
Mass	50 g		
ADJUSTMENTS (MANUAL)			
Shutter	1/10,000 to 30 s		
Gain	0 to 18 dB		
ADJUSTMENTS (AUTOMATIC)			
Shutter	1/10,000 to 30 s		
Gain	0 to 18 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 72AUC02-F (Color)

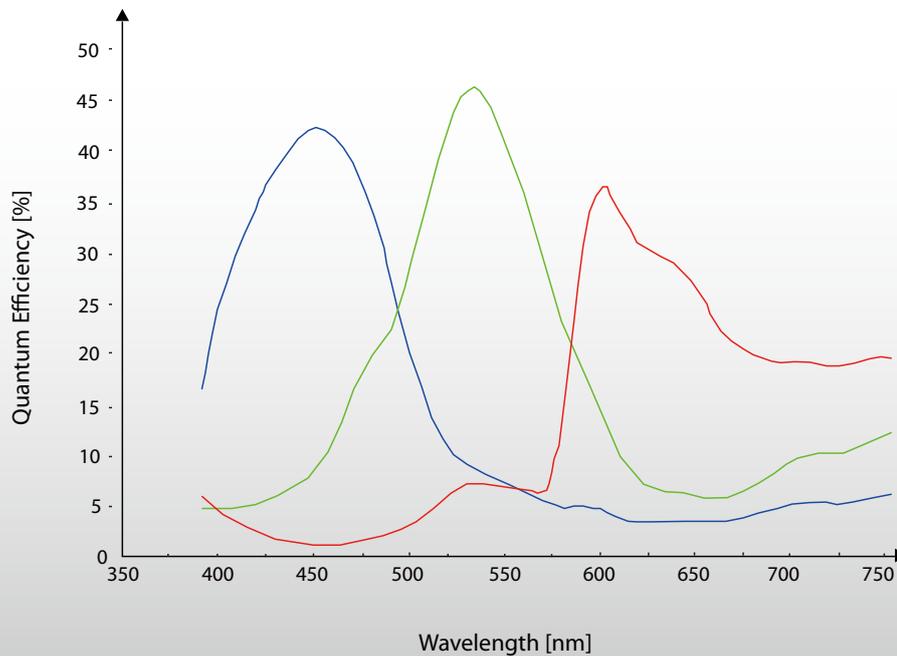
GENERAL BEHAVIOR				
Example Configurations				
Resolution	Format	FPS	Sensitivity	
2592x1944	1/2.5 "	6	1.4 V/lux-sec	
2048x1536	1/3 "	9	1.4 V/lux-sec	
1600x1200	1/4 "	13	1.4 V/lux-sec	
1280x960	1/4.5 "	19	1.4 V/lux-sec	
1280x960	1/2.5 "	15	5.6 V/lux-sec	
1024x768	1/5.5 "	27	1.4 V/lux-sec	
640x480	1/9 "	52	1.4 V/lux-sec	
640x480	1/2.5 "	23	22.4 V/lux-sec	
Color format	Y800, RGB32			
Dynamic range	8 bit			
INTERFACE (OPTICAL)				
IR cut filter	no			
Sensor specification	MT9P031			
Shutter	Rolling			
Format	1/2.5 "			
Resolution	H: 2592, V: 1944			
Pixel size	H: 2.2 μ m, V: 2.2 μ m			
Lens mount	M12x0.5			
INTERFACE (ELECTRICAL)				
Supply voltage	4.5 to 5.5 VDC			
Current consumption	approx. 250 mA at 5 VDC			
INTERFACE (MECHANICAL)				
Dimensions	H: 36 mm, W: 36 mm, L: 25 mm			
Mass	50 g			
ADJUSTMENTS (MANUAL)				
Shutter	1/10,000 to 30 s			
Gain	0 to 18 dB			
White balance	-6 dB to +6 dB			
ADJUSTMENTS (AUTOMATIC)				
Shutter	1/10,000 to 30 s			
Gain	0 to 18 dB			
White balance	-6 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 MT9P031 M - courtesy of Aptina Deutschland GmbH

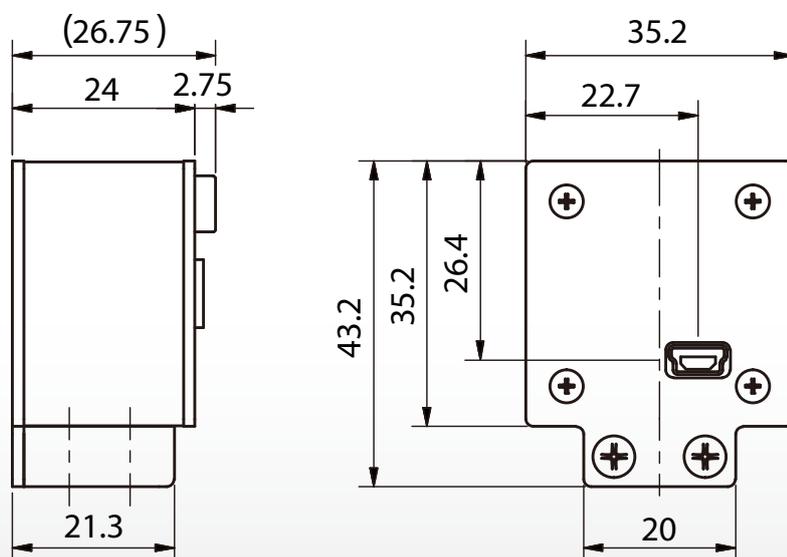
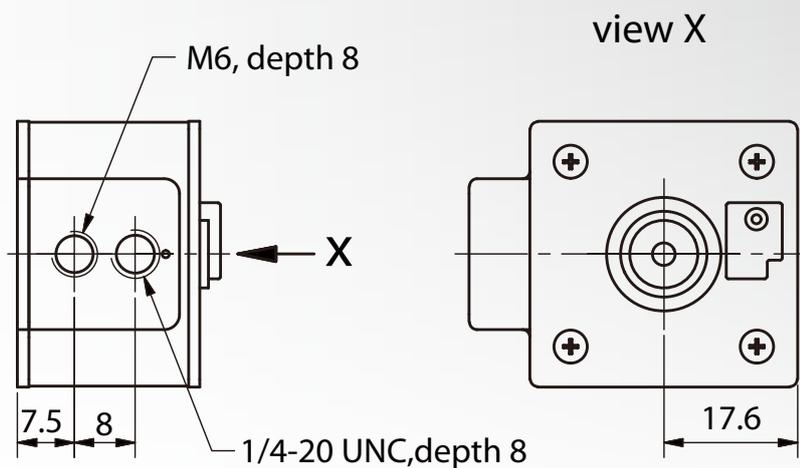
Color Spectral Response Curve



Sensor: Micron MT9P031 C - courtesy of Aptina Deutschland GmbH

DMK 72AUC02-F / DFK 72AUC02-F

Dimensional Diagram (USB port at the back)

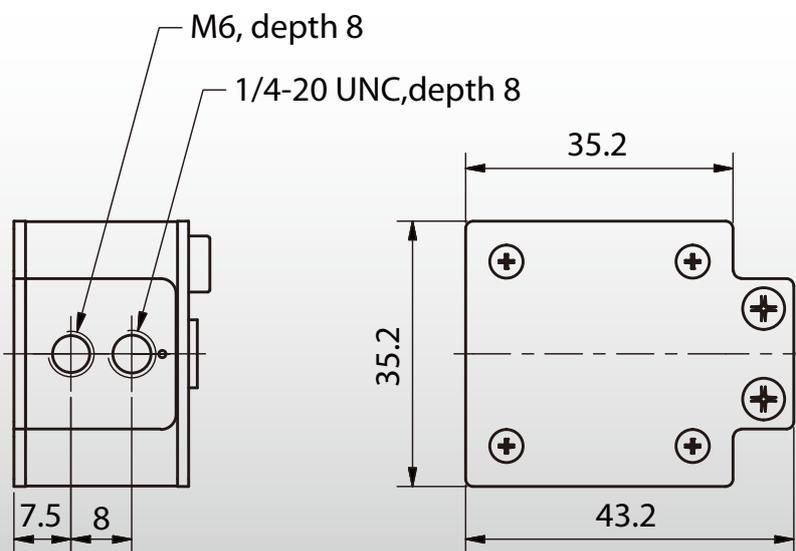
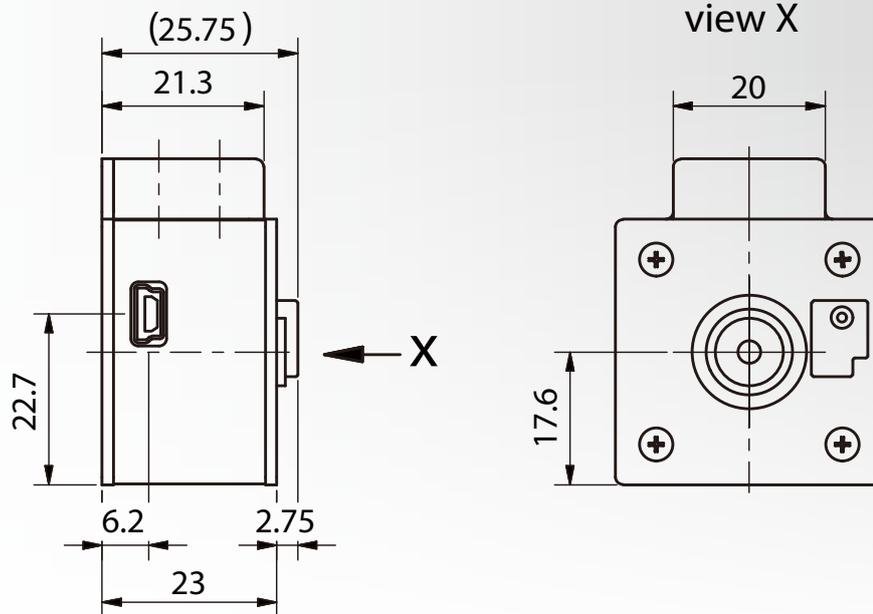


Dimensions : mm
Tolerances : DIN ISO 2768m



DMK 72AUC02-F / DFK 72AUC02-F

Dimensional Diagram (USB port at the side)



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

All product and company names in this document may be trademarks and tradenames of their respective owners and are hereby acknowledged. The Imaging Source Europe GmbH cannot and does not take any responsibility or liability for any information contained in this document. The source code presented in this document is exclusively used for didactic purposes. The Imaging Source does not assume any kind of warranty expressed or implied, resulting from the use of the content of this document or the source code.

The Imaging Source Company reserves the right to make changes in specifications, function or design at any time and without prior notice.
Last update: October, 2012
Copyright © 2012 The Imaging Source Europe GmbH
All rights reserved. Reprint, also in parts, only allowed with permission of The Imaging Source Europe GmbH, fsaf72.en_US.pdf

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