DMK Z12GP031 Monochrome Zoom Camera
The Imaging Source "12x 5MP" Series GigE Zoom Camera

Only 50×50×103 mm

Integrated lens

The Imaging Source DMK Z12GP031 monochrome camera has a GigE interface and is the perfect solution for many industrial automation, quality assurance, security, surveillance and medical applications. The monochrome camera ships with the very sensitive 1/2.5 inch Aptina CMOS MT9P031 sensor. With up to 15 images per second, the DMK Z12GP031 is a low cost, yet highly versatile imaging solution. The camera integrates an autofocus lens (Automatic/manual)

The Imaging Source authors and supports drivers, SDKs, extensions and end-user software for Microsoft Windows, which can be freely downloaded from our web site. Extensions for Microsoft Windows enable the DMK Z12GP031 to be integrated in to common machine vision software libraries, such as LabView and OpenCV. Furthermore, we author and support open source Linux drivers and software (Apache License 2.0) to integrate the camera into popular distributions. Download the Linux source code at GitHub.

Features

- GigE interface with PoE
- $1/2.5$ inch Aptina CMOS sensor (MT9P031)
- Motor zoom: 4.8 mm to 57.6 mm
- 2,592×1,944 (5 MP)
- Up to 15 images per second
- Rolling shutter
- Trigger and I/O inputs
- Only 50×50×103 mm
- Manufactured by The Imaging Source
- Ships with Windows and Linux software

Accessories

- Standard GigE cable in various lengths
- Trigger cable
- External power supply with cable

Device Drivers for Microsoft Windows

Device Driver for GigE Cameras

Software Development Kits (SDKs) for Microsoft Windows

IC Imaging Control .NET Component for C#, VB.NET, C++ Class Library for C++ projects, IC Imaging Control C Library, IC 3D SDK - C, C++ library for stereo depth estimation, IC Imaging Control ActiveX, IC Imaging Control ActiveX Runtime Setup

Extensions for Microsoft Windows

TWAIN Source for IC Imaging Control, Cognex VisionPro AIK Plugin for IC Imaging Control, LabVIEW Extension for IC Imaging Control, IC Matlab Plugin for Matlab 10.0 R2010, IC Matlab Plugin for Matlab R2013b and higher versions, IC NeuroCheck Driver for NeuroCheck 6.0, IC NeuroCheck Driver for NeuroCheck 6.1

End User Software for Microsoft Windows

IC Capture - image acquisition, IC Measure - manual on-screen image measurement and image acquisition, IC 3D - User friendly stereo calibration, depth estimation and 3D visualization, IC Fullscreen Presenter, IC Line Profiler, Footswitch software for IC Capture, Scan2Docx, Scan2Docx OCR, Scan2Voice

DMK Z12GP031 Specification

GENERAL BEHAVIOR

Dynamic range	8/12 bit
Video formats @ frame rate (maximum)	2,592×1,944 (5 MP) RGB32 @ 15 fps 2,592×1,944 (5 MP) Y800 @ 15 fps 2,592×1,944 (5 MP) Y16 @ 15 fps

INTERFACE (OPTICAL)

IR cut filter	✖
Sensor type	CMOS
Sensor specification	Aptina MT9P031
Shutter	rolling
Format	^{1}/2.5 inch
Pixel size	H: 2.2 µm, V: 2.2 µm
Focal length	4.8 mm (wide) to 57.6 mm (tele)
F-Stop	2.2 (wide) to 2.3 (tele)
MOD	3 cm (wide) to 70 cm (tele)
Focus	automatic and manual
Iris	automatic and manual
Lens	integrated

INTERFACE (ELECTRICAL)

Interface	GigE
Supply voltage	11 VDC to 13 VDC or POE: 48 VDC to 56 VDC
Current consumption	approx 600 mA @ 12 VDC
Auto iris control	✖
Trigger	✔
I/Os	✔

INTERFACE (MECHANICAL)

Dimensions	H: 50 mm, W: 50 mm, L: 103 mm
Mass	330 g

ADJUSTMENTS

Shutter	^{1}/20,000 s to 30 s
Gain	0 dB to 12 dB
White balance	-2 dB to 6 dB

ENVIRONMENTAL

|	
Temperature (operating)	-5 °C to 45 °C
Temperature (storage)	-20 °C to 60 °C
Humidity (operating)	20 % to 80 % (non-condensing)
Humidity (storage)	20 % to 95 % (non-condensing)

Subject to change

Aptina MT9P031 Spectral Response Curve

CMOS Sensor in DMK Z12GP031

Chart: Quantum Efficiency [%] versus Wavelength [nm]
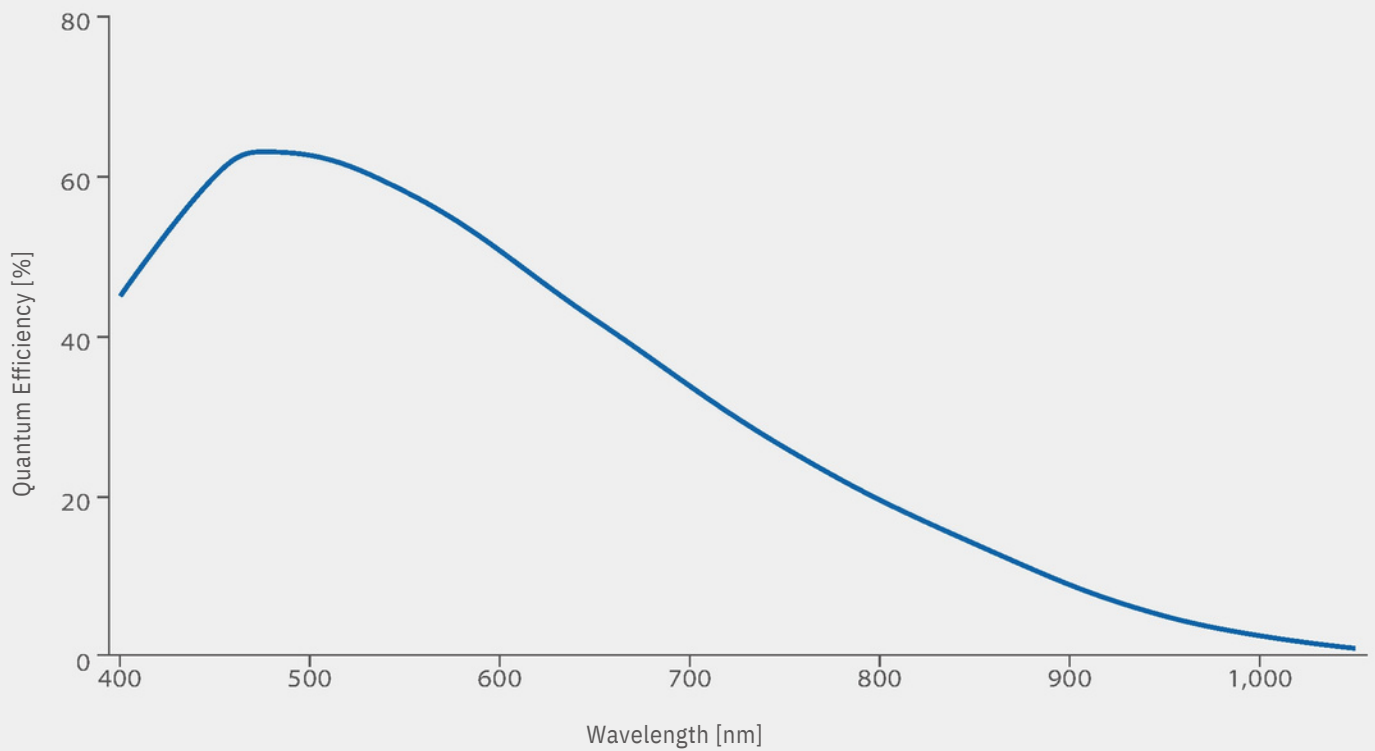
DMK Z12GP031 Dimensional Diagram

view X

12   46,5

X

1/4-20 UNC, depth 8

M6, depth 8

50,6

50,6

25,3

10

(5)   5   5

95

15

Q50

24   (3x)

(12x) M3, depth 4
(2x) M2

(35,5)   30   37,5

36,3

8,4 20

8 29,6

14,3

18
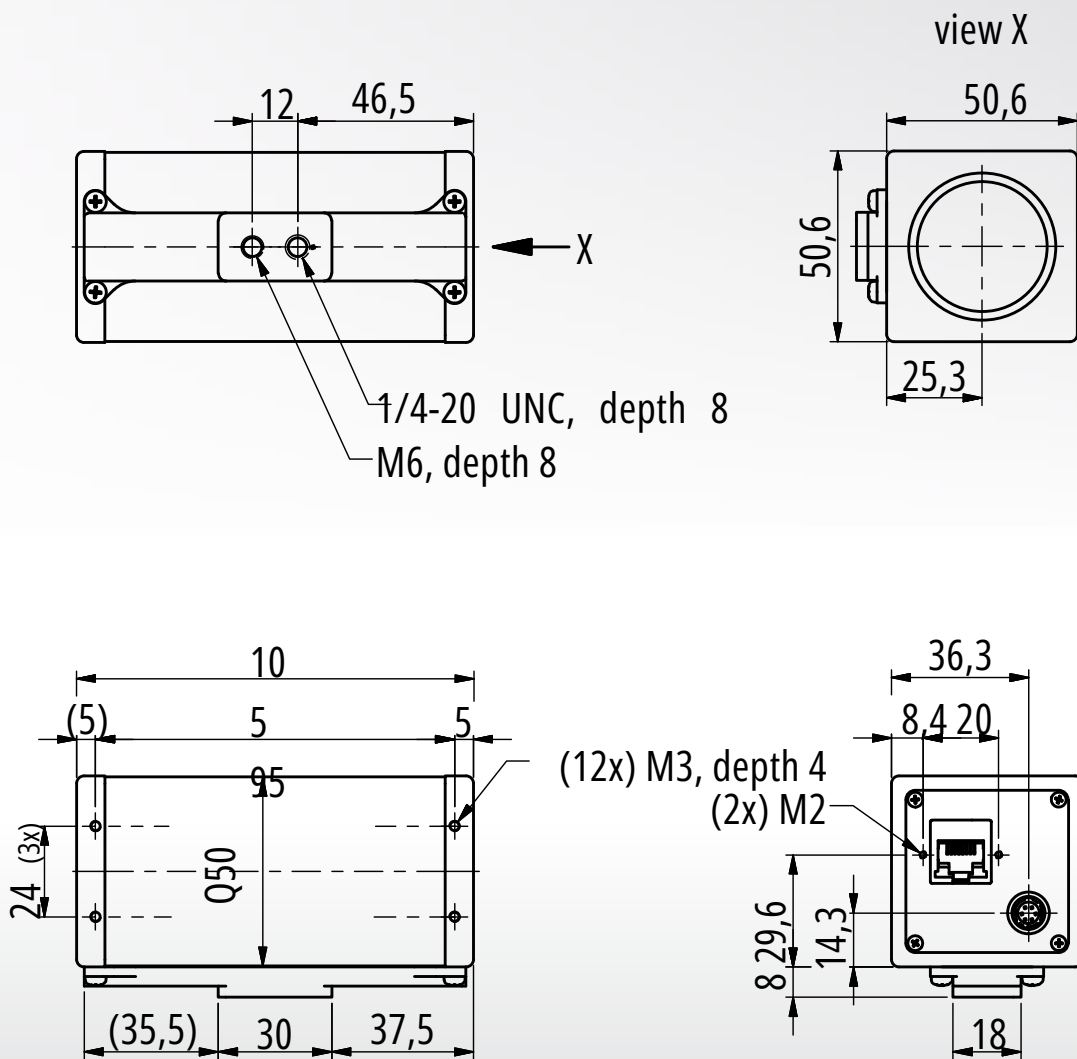
Scale: 1:2
Dimensions: mm
Tolerances: DIN ISO 2768m