

### DMK Z30GP031 Monochrome Zoom Camera

The Imaging Source "30x 3MP" Series GigE Zoom Camera



The Imaging Source DMK Z30GP031 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 Z30GP031 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 Z30GP031 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: 4.3 mm to 129 mm
- 2,592×1,944 (5 MP)
- Up to 15 images per second
- Rolling shutter
- Trigger and I/O inputs
- Only 60×60×116 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 Z30GP031 Specification**

#### **GENERAL BEHAVIOR**

Dynamic range 8/12 bit

Video formats @ frame rate 2,592×1,944 (5 MP) RGB32 @ 15 fps (maximum) 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** 

Aptina MT9P031 Sensor specification

Shutter rolling

Format  $^{1}/_{2.5}$  inch

Pixel size H: 2.2  $\mu$ m, V: 2.2  $\mu$ m

Focal length 4.3 mm (wide) to 129 mm (tele)

F-Stop 1.6 (wide) to 1.6 (tele)

MOD 3 cm (wide) to 400 cm (tele)

Focus automatic and manual automatic and manual Iris

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: 60 mm, W: 60 mm, L: 116 mm

Mass 330 g

### **ADJUSTMENTS**

 $^{1}/_{20,000}$  s to 30 s Shutter

Gain 0 dB to 12 dB White balance -2 dB to 6 dB

#### **ENVIRONMENTAL**

Temperature (operating) -5 °C to 45 °C

-20 °C to 60 °C Temperature (storage)

Humidity (operating) 20% to 80% (non-condensing)

Humidity (storage)

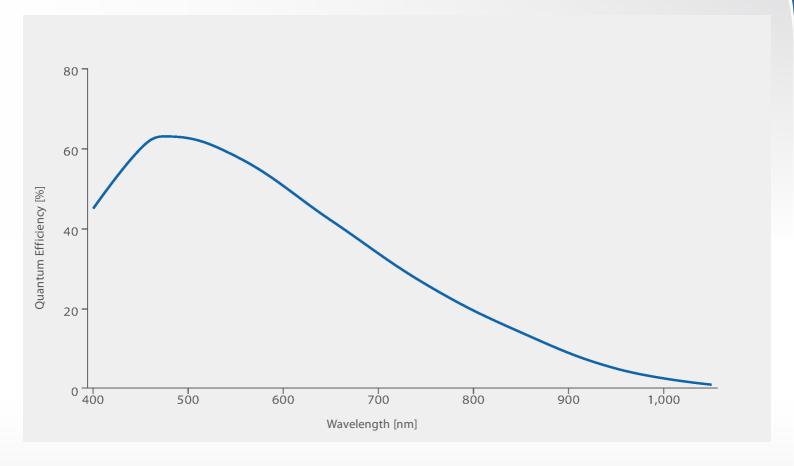
Subject to change

20 % to 95 % (non-condensing)



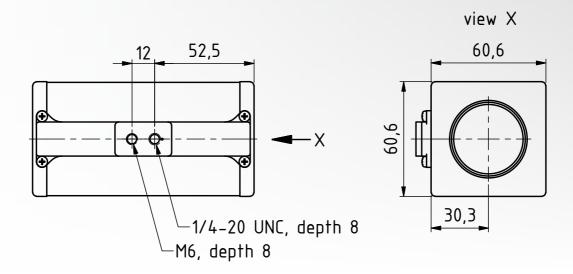
# **Aptina MT9P031 Spectral Response Curve**

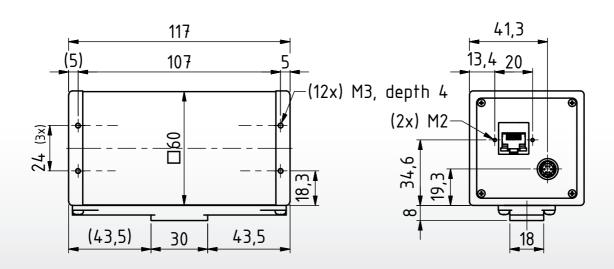
CMOS Sensor in DMK Z30GP031





# **DMK Z30GP031 Dimensional Diagram**





Scale: 1:2

Dimensions: mm

Tolerances: DIN ISO 2768m





## Machine vision, designed in Germany



Ever since The Imaging Source was founded in 1990, it has been one of the leading manufacturers of industrial cameras, frame grabbers and video converters for automation, quality assurance, logistics, medicine, science and security.

Our extensive range of industrial cameras ships with USB 3.0, USB 2.0, GigE, FireWire 800 and FireWire 400 interfaces. Thanks to their multi-purpose features and extremely high quality standards, the cameras are commonly used in demanding applications.

The software support offered by the cameras fulfill the requirements of demanding end-users and programmers. The cameras can be put into operation within a few minutes, or integrated into new or existing applications with only a few lines of code. All camera drivers are Microsoft certified. The easy of which the cameras can be integrated, the corresponding low integration costs, and the high quality of the software set the industry standard.

All cameras, frame grabbers and video converters, manufactured by The Imaging Source, are the result of decades of experience, uncompromisingly high quality standards, and continual development. Developers and system engineers prefer The Imaging Source cameras due to their ease of system integration.



## **World-Class Software and Customer Care**



What really separates The Imaging Source from its competitors is the comprehensive Windows and Linux software available free of charge with all its products, and the unsurpassed level of customer service.

The Imaging Source authors and supports device drivers, software development kits (SDKs), programming samples, extensions, end-user software and software tools for Microsoft Windows. All Windows software can be download directly from our web site:

### http://www.theimagingsource.com

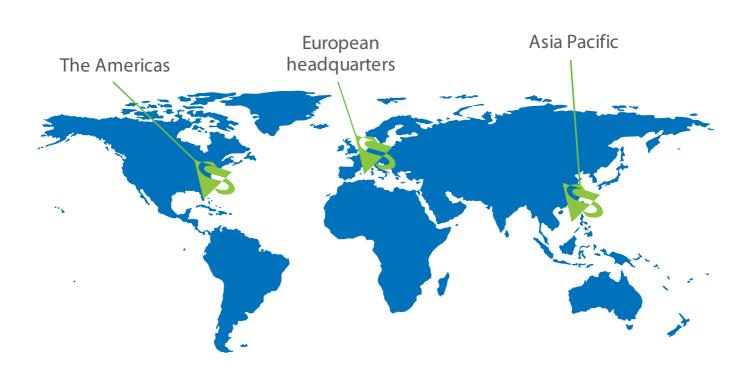
Additionally, The Imaging Source authors and supports open source drivers and end-user software for Linux. The Linux source code, which is released under the Apache License 2.0, enables you to integrate all machine vision cameras into popular Linux distributions. The Open Source code is available to download from GitHub:

### https://github.com

The Imaging Source guarantees fast and efficient customer service for all hardware and software issues via our skilled customer service representatives. Not only will we provide support regarding technical issues, but we will also work with you to implement our components into your project. Contact customer service at:

http://www.theimagingsource.com





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