

Preliminary

VZ-5MG-M23C00-NIR

Industrial Digital Cameras with NIR enhanced GigE Interface



GigE
VISION

GEN<I>CAM

VZ-5MG-M23C00-NIR is the NIR enhanced GigE Vision camera with the Onsemi AR0522 CMOS sensor, the sensor has optimized response in the near-infrared band.

Thanks to the compact design (29mm x 29mm x 40.3mm), robust metal housings and locking screw connectors, the VZ-5MG-M23C00-NIR camera can secure the reliability of cameras deployed in harsh environments. The VZ-5MG-M23C00-NIR camera has opto-isolated I/Os. The GPIOs give the camera maximum flexibility to adapt to specific needs.

The VZ-5MG-M23C00-NIR camera is especially suitable for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

vieworks

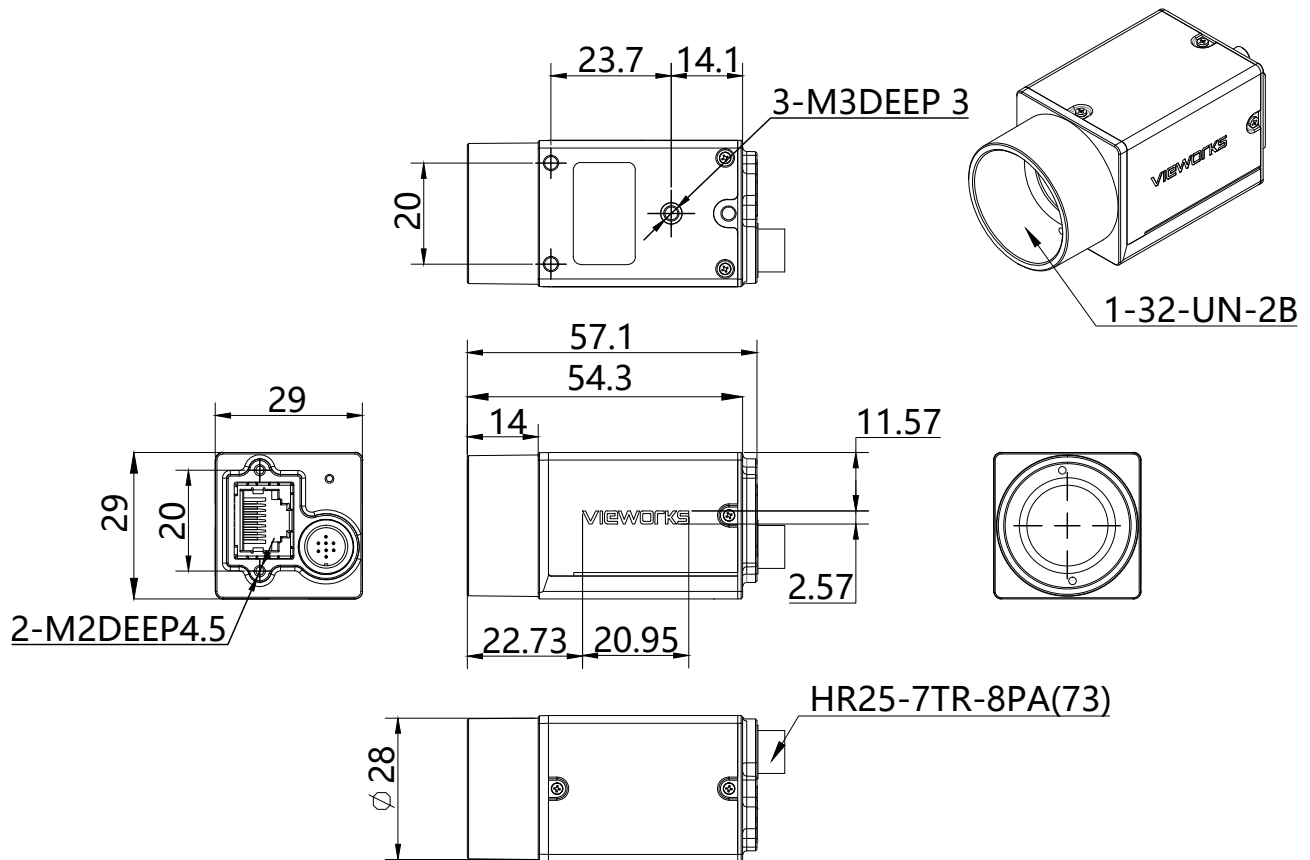
vision.vieworks.com

VZ-5MG-M23C00-NIR

Industrial Digital Camera with NIR enhanced GigE Interface

Mechanical Dimensions

Unit: mm



VZ-5MG-M23C00-NIR

Industrial Digital Camera with NIR enhanced GigE Interface

Main Features

- Power over Ethernet (IEEE802.3af)
- Programmable ROI, increased frame rate with partial scan
- Programmable LUTs and storable user sets
- Supports Binning, Decimation, Digital Shift, Noise Reduction and Dynamic Defect Pixel correction
- Adjustable Gamma and Sharpness for optimizing the brightness and sharpness of images
- Adjustable packet-size and packet-delay, and reserved bandwidth
- Support Remove Parameter Limit to expand the range of exposure, gain, and so on
- Compatible with GenICam™ and GigE Vision®

Applications

- Industrial Inspection
- Medical Research
- Scientific Research
- Education
- Security

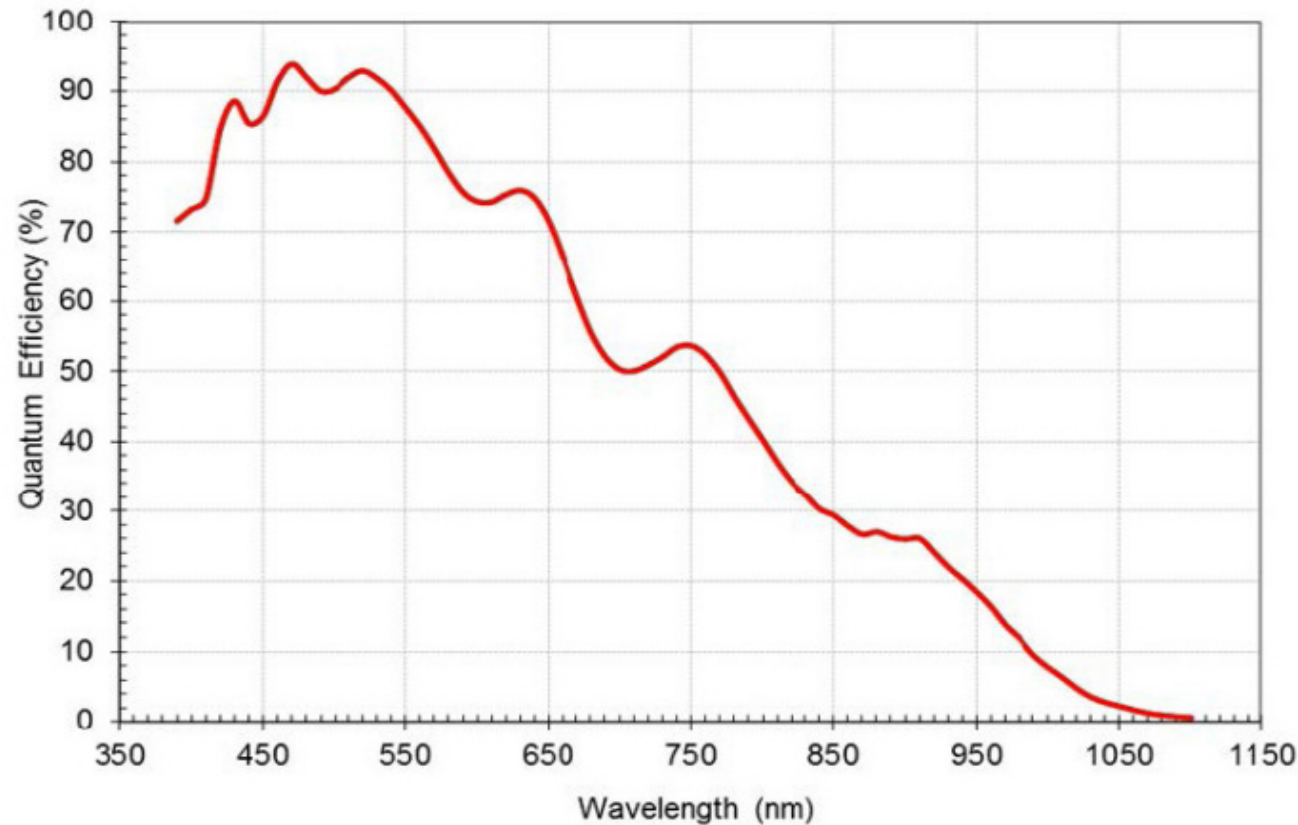
Specifications

Model	VZ-5MG-M23C00-NIR
Resolution (H x V)	2592 x 1944
Sensor	Onsemi AR0522 rolling shutter CMOS
Pixel Size	2.2 μm $\times$ 2.2 μm
Data Interface	Fast Ethernet (100 Mbit/s) or Gigabit Ethernet (1000 Mbit/s)
Frame Rate	23.3 fps @ 2592 $\times$ 1944 (Adjust the packet size to 8192 and reserved bandwidth to 5)
ADC Bit Depth	12bit
Pixel Bit Depth	8 bit, 12 bit
Exposure Time	Standard: 20 μs to 1 s, Actual Steps: 1 row period
Gain	0 dB to 23.6 dB, Default: 0 dB, Steps: 0.1 dB
Mono / Color	Mono NIR
Pixel Formats	Mono 8 bit and Mono 12 bit
Signal Noise Ratio	40.2dB
Synchronization	Hardware trigger and Software trigger
I/O	1 input and 1 output with opto-isolated, 2 programmable GPIOs
Temperature	Operating: 0°C to 45°C, Storage: -20°C to 70°C
Operating Humidity	10% to 80%
Power Requirements	12 to 24 VDC via 8-Pin or PoE
Power Consumption	< 3 W @ 24 VDC, < 3.75 W @ PoE
Lens Mount	C
Dimensions and Weight	29mm x 29mm x 40.3mm, 85g
Programmable Control	Image size, gain, exposure time, trigger polarity, flash polarity
Conformity	CE, FCC, RoHS, GenICam, GigE Vision

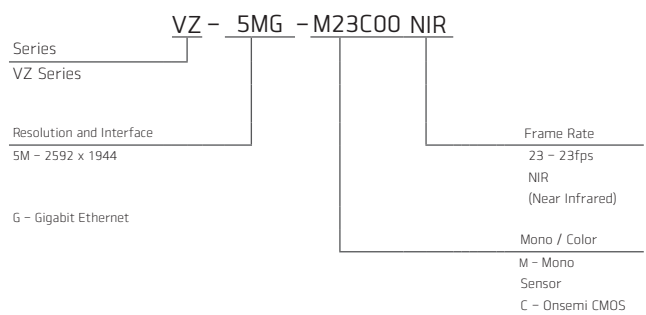
VZ-5MG-M23C00-NIR

Industrial Digital Camera with NIR enhanced GigE Interface

Spectral Response



Ordering Scheme



Connector Specification

Power/Control



- | | |
|-------------|---|
| 1: Line0+ | Opto-isolated input+ |
| 2: Ground | GND & GPIO GND |
| 3: Line0- | Opto-isolated input- |
| 4: POWER_IN | Camera external power (+12 VDC ~ +24 VDC) |
| 5: Line2 | GPIO input/output |
| 6: Line3 | GPIO input/output |
| 7: Line1- | Opto-isolated input- |
| 8: Line1+ | Opto-isolated input+ |

Connectors on camera body