

# VZ-3MG-M/C 37H

Industrial Digital Cameras with GigE Interface



**GigE**  
VISION

**GEN*i*CAM**

VZ-3MG-M/C 37H, the new industrial GigE vision camera with improved built-in ISP algorithms provides multiple acquisition controls. Thanks to the extremely compact design (29mm x 29mm x 40.3mm), robust metal housings and locking screw connectors, the VZ-3MG-M/C 37H camera can secure the reliability of cameras deployed in harsh environments.

VZ-3MG-M/C 37H has opto-isolated I/Os, and the GPIOs give the camera maximum flexibility to adapt to specific needs. The VZ-3MG-M/C 37H camera is ideal for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

**VIEWWORKS**

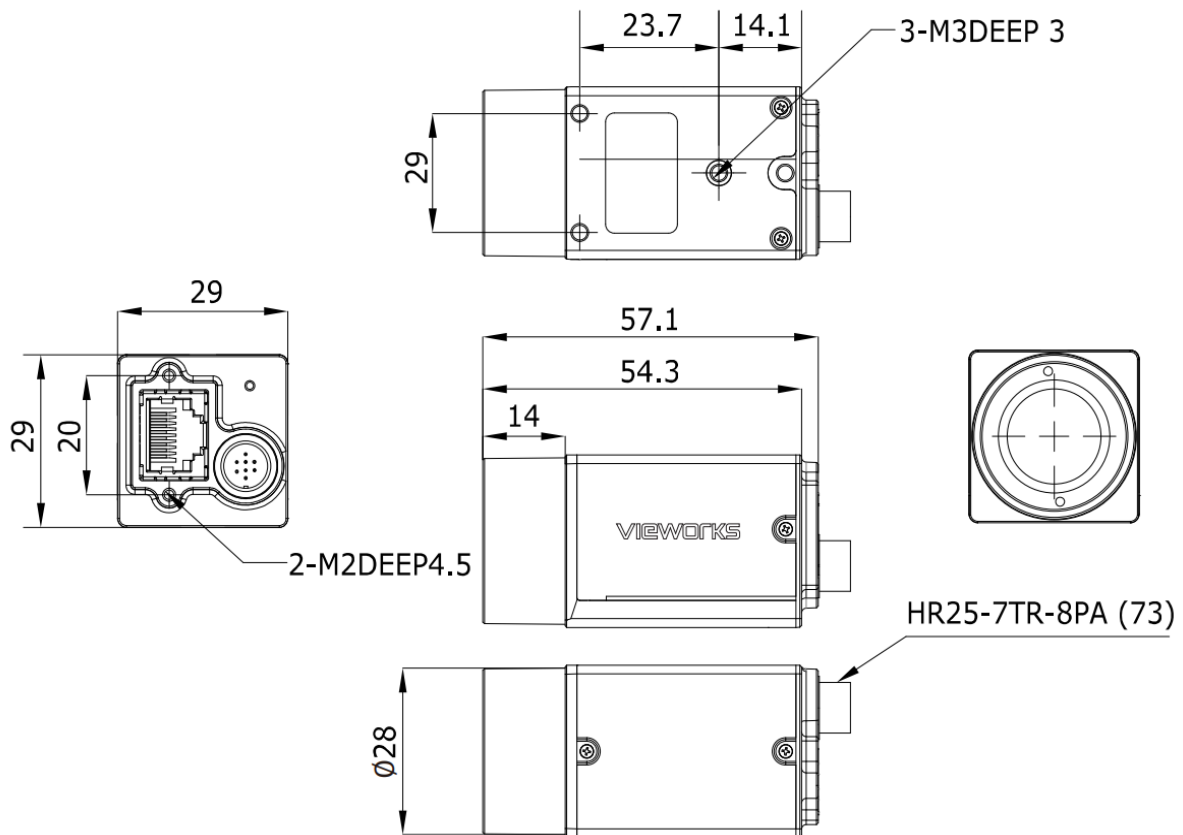
[vision.viewworks.com](http://vision.viewworks.com)

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## Mechanical Dimensions

Unit: mm



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## Main Features

- Power over Ethernet (IEEE802.3af)
- Programmable ROI, increased frame rate with partial scan
- Programmable LUTs and storable user sets
- 4 acquisition controls: single frame, continuous, software trigger, external trigger
- Adjustable Gamma and Sharpness for optimizing the brightness and sharpness of images
- Support Remove Parameter Limit to expand the range of exposure, gain, white balance, etc.
- Compatible with GenICam™ and GigE Vision

## Applications

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

## Specifications

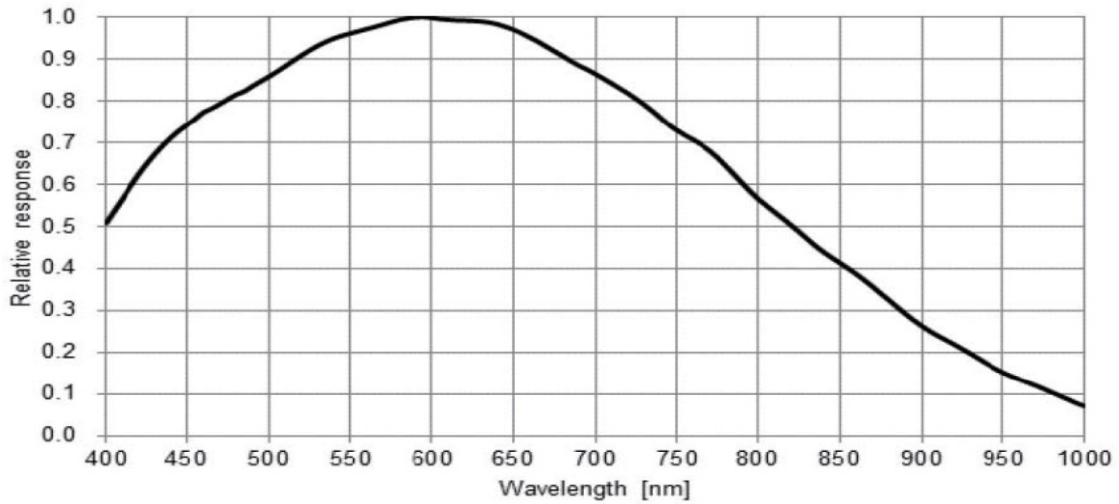
Model	VZ-3MG-M/C 37H00	
Resolution (H x V)	2048 x 1536	
Sensor	Sony IMX265 Global Shutter CMOS	
Pixel Size	3.45 $\mu\text{m}$ x 3.45 $\mu\text{m}$	
Data Interface	Fast Ethernet (100 Mbit/s) or Gigabit Ethernet (1000 Mbit/s)	
Frame Rate	37.4 fps @ 2048 x 1536 (Adjust the packet size to 8192 and reserved bandwidth to 5) Under acquisition burst high speed mode, acquisition frame rate up to 55.82fps	
ADC Bit Depth	12 bit	
Pixel Bit Depth	8 bit, 12 bit	
Exposure Time	UltraShort: 1 $\mu\text{s}$ ~100 $\mu\text{s}$ , Actual Steps: 1 $\mu\text{s}$ Standard: 20 $\mu\text{s}$ ~ 1 s, Actual Steps: 1 row period	
Gain	0 dB ~ 24 dB (Default: 0 dB, Steps: 0.1 dB)	
Mono / Color	Color	Mono
Pixel Formats	Bayer RG8, Bayer RG12	Mono8, Mono12
Single Noise Ratio	40.84dB	
Synchronization	Hardware trigger, Software trigger	
I/O	1 input and 1 output with opto-isolated, 2 programmable GPIOs	
Temperature	Operating: 0°C ~ 45°C, Storage: -20°C ~ 70°C	
Operating Humidity	10% ~ 80%	
Power Requirements	12VDC-10% ~ 24VDC+10% supplied via the camera's Hirose connector. Supports PoE (Power over Ethernet, IEEE802.3af compliant)	
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, RoHS, FCC, GigE Vision, GenICam, KC	

# VZ-3MG-M/C 37H

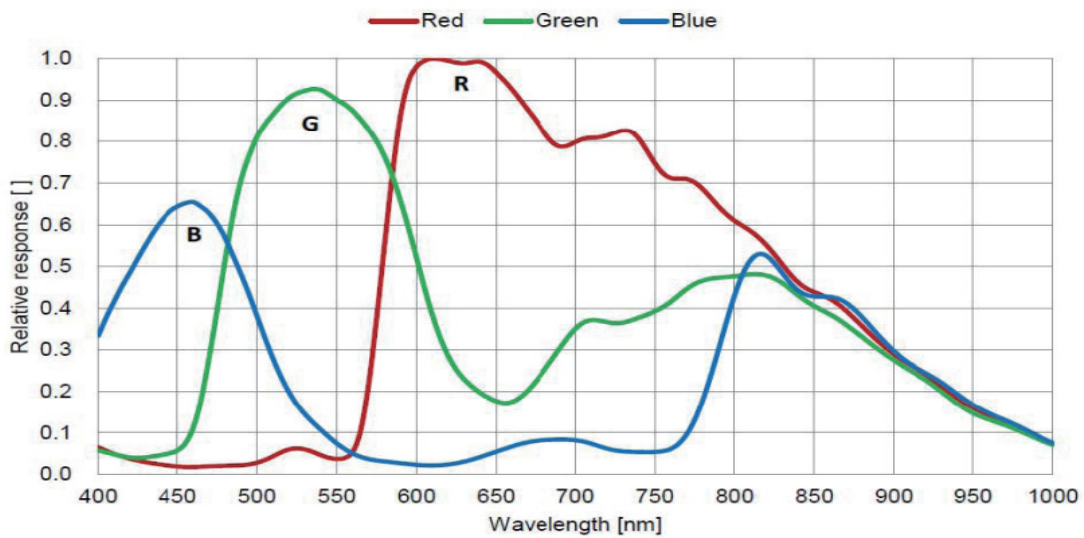
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## Spectral Response

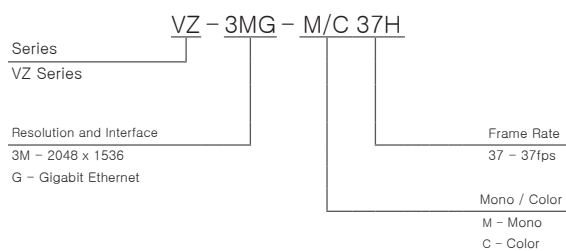
- VZ-3MG-M37H00 (Mono)



- VZ-3MG-C37H00 (Color)



## 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    | GPO input/output                          |
| 6: Line3    | GPO input/output                          |
| 7: Line1-   | Opto-isolated input-                      |
| 8: Line1+   | Opto-isolated input+                      |