

# VZ-400G-M/C 302H

Industrial Digital Cameras with GigE Interface



**GIG**  
VISION  
**GEN<i>i</i>CAM**

VZ-400G-M/C 302H, the new industrial GigE vision camera with improved built-in ISP algorithms provides multiple acquisition controls. Thanks to the extremely compact design (29mmx29mmx40.3mm), robust metal housings and locking screw connectors, the VZ-400G-M/C302H camera can secure the reliability of cameras deployed in harsh environments.

VZ-400G-M/C 302H has opto-isolated I/Os, and the GPIOs give the camera maximum flexibility to adapt to specific needs. The VZ-400G-M/C 302H camera is ideal for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

**VIEWWORKS**

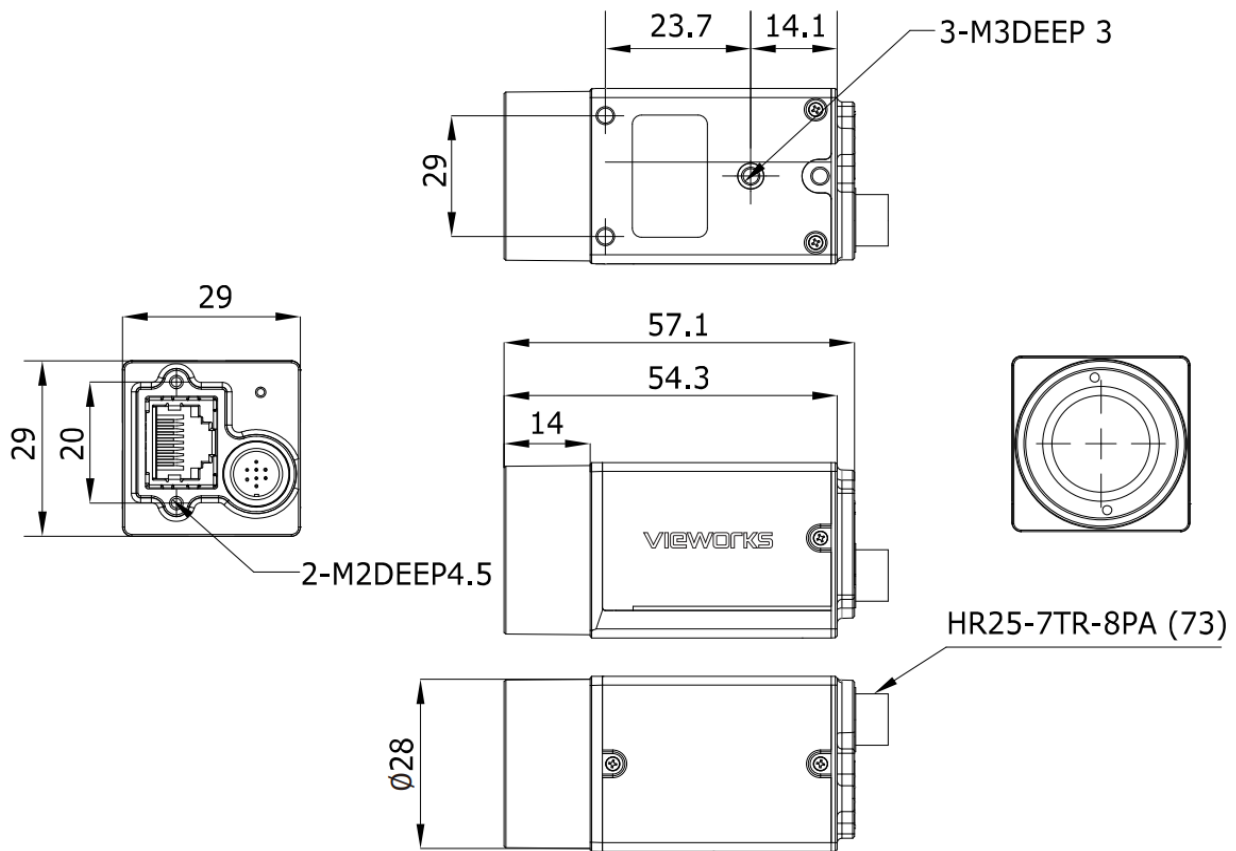
[vision.viewworks.com](http://vision.viewworks.com)

# VZ-400G-M/C 302H

Industrial Digital Camera with GigE Interface

## Mechanical Dimensions

Unit: mm



# VZ-400G-M/C 302H

Industrial Digital Camera with GigE Interface

## Main Features

- Power over Ethernet (IEEE802.3af compliant)
- 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.
- Two exposure time modes: Standard / Minimal

## Applications

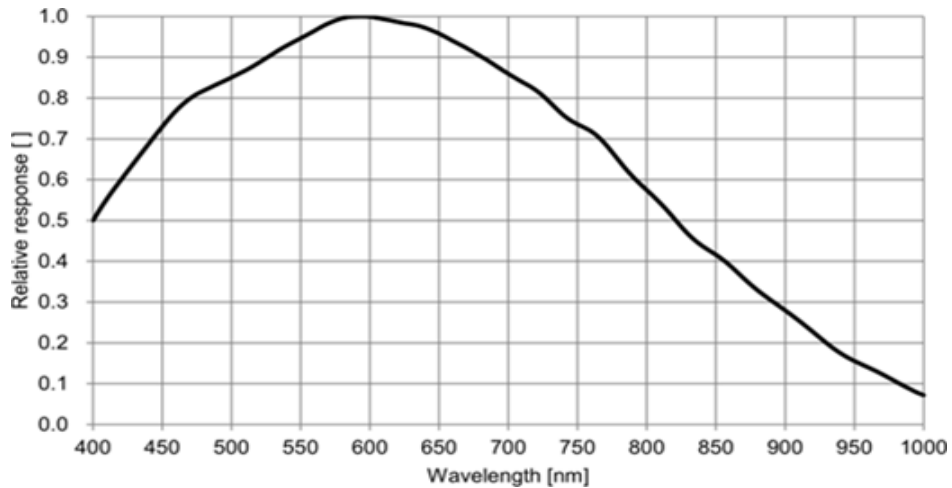
- Industrial Inspection
- Medical Research
- Scientific Research
- Education
- Security

## Specifications

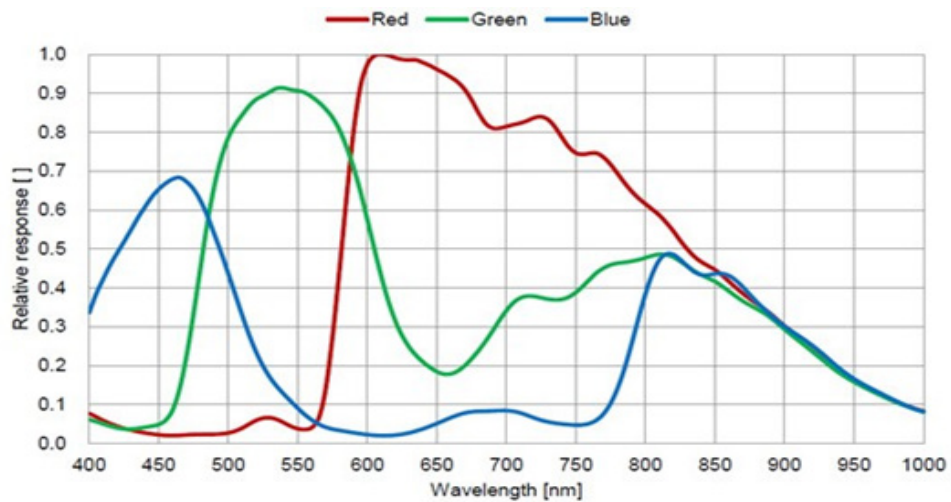
|                       |  |               |
|-----------------------|--|---------------|
| Model                 | VZ-400G-M/C 302H00   |               |
| Resolution (H x V)    | 720 x 540  |               |
| Sensor                | 1/2.9" Sony IMX287 Global Shutter CMOS   |               |
| Pixel Size            | 6.9 $\mu\text{m}$ x 6.9 $\mu\text{m}$  |               |
| Data Interface        | Fast Ethernet (100 Mbit/s) or Gigabit Ethernet (1000 Mbit/s)   |               |
| Frame Rate            | 302.3 fps @ 720 x 540  |               |
| 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 $\mu\text{s}$<br>Standard: 20 $\mu\text{s}$ ~ 1s, Actual Steps: 1 row period |               |
| Gain                  | 0dB ~ 24dB, Default: 0dB, Steps: 0.1dB   |               |
| Mono / Color          | Color  | Mono          |
| Pixel Formats         | Bayer RG8, Bayer RG12  | Mono8, Mono12 |
| Single Noise Ratio    | 42.99dB  | 43.03dB       |
| 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<br>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  |               |

## Spectral Response

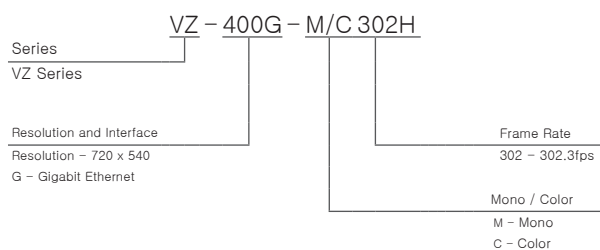
- VZ-400G-M302H00 (Mono)



- VZ-400G-C302H00 (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+                      |

Connectors on camera body