

# VZ-12MU-M/C 32H10

Industrial Digital Cameras with USB3.0 Interface



**USB<sup>®</sup>**  
VISION

**GEN<i>CAM**

VZ-12MU-M/C 32H10 is a monochrome/color USB3.0 Vision camera with the Sony IMX253 Global Shutter CMOS. Thanks to the extremely compact design (36mm x 31mm x 38.8mm), robust metal housings and locking screw connectors, VZ-12MU-M/C 32H10 has an outstanding price and performance ratio. VZ-12MU-M/C 32H10 is ideal for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

**VIEWORKS**

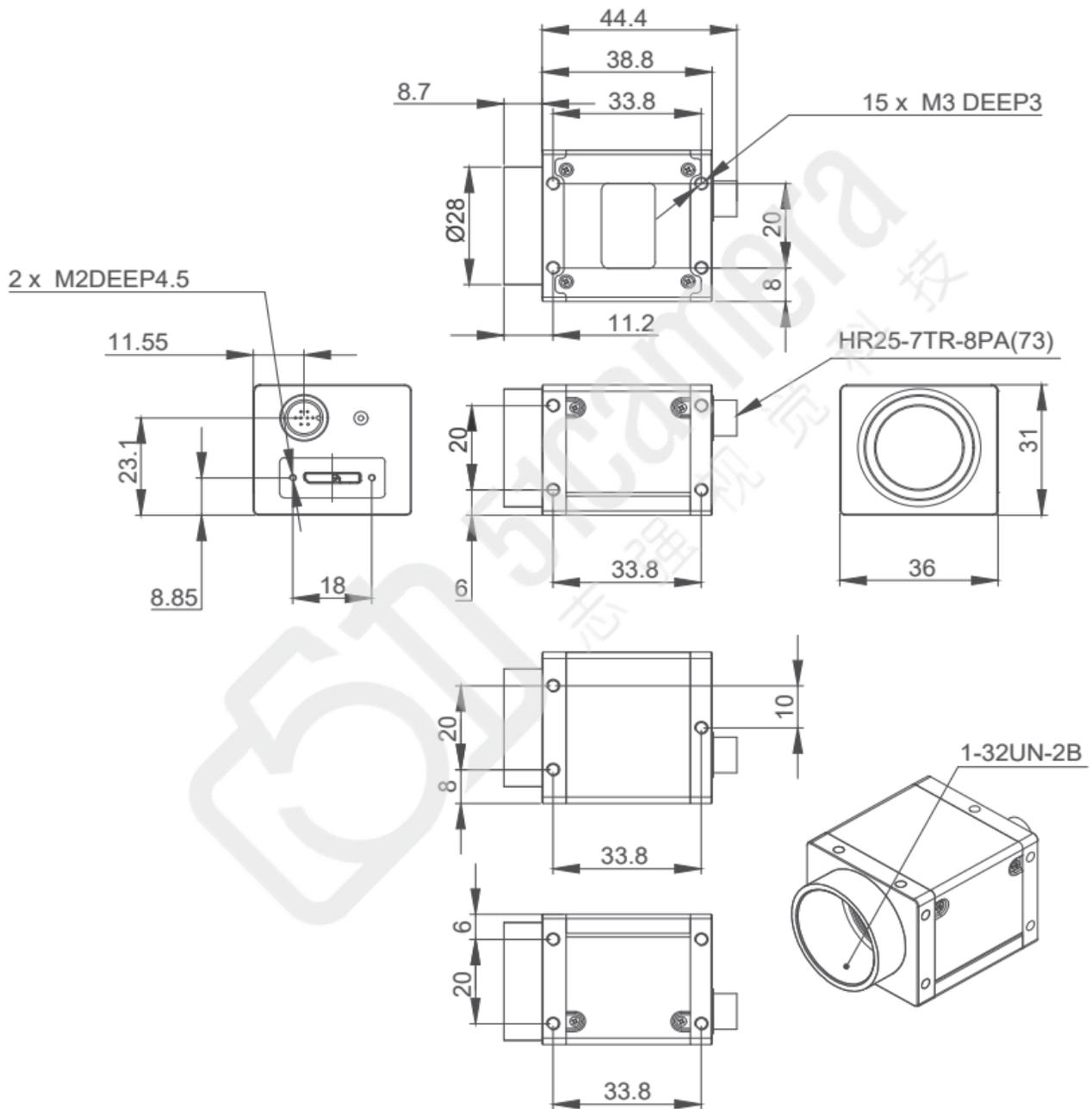
[vision.vieworks.com](http://vision.vieworks.com)

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## Mechanical Dimensions

Unit: mm



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## Main Features

- Trigger mode: Frame Start / Frame Burst Start
- Programmable LUTs and User Set Control
- 16KB data storage area for saving algorithm coefficients and parameter configuration
- Multiple samples and easy-to-integrate SDKs for various programming tools
- Support Storable user sets, Timer and Counter
- Support Remove Parameter Limit to expand the range of exposure, gain, white balance, etc.
- Compatible with GenICam™ and USB3 Vision®

## Applications

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

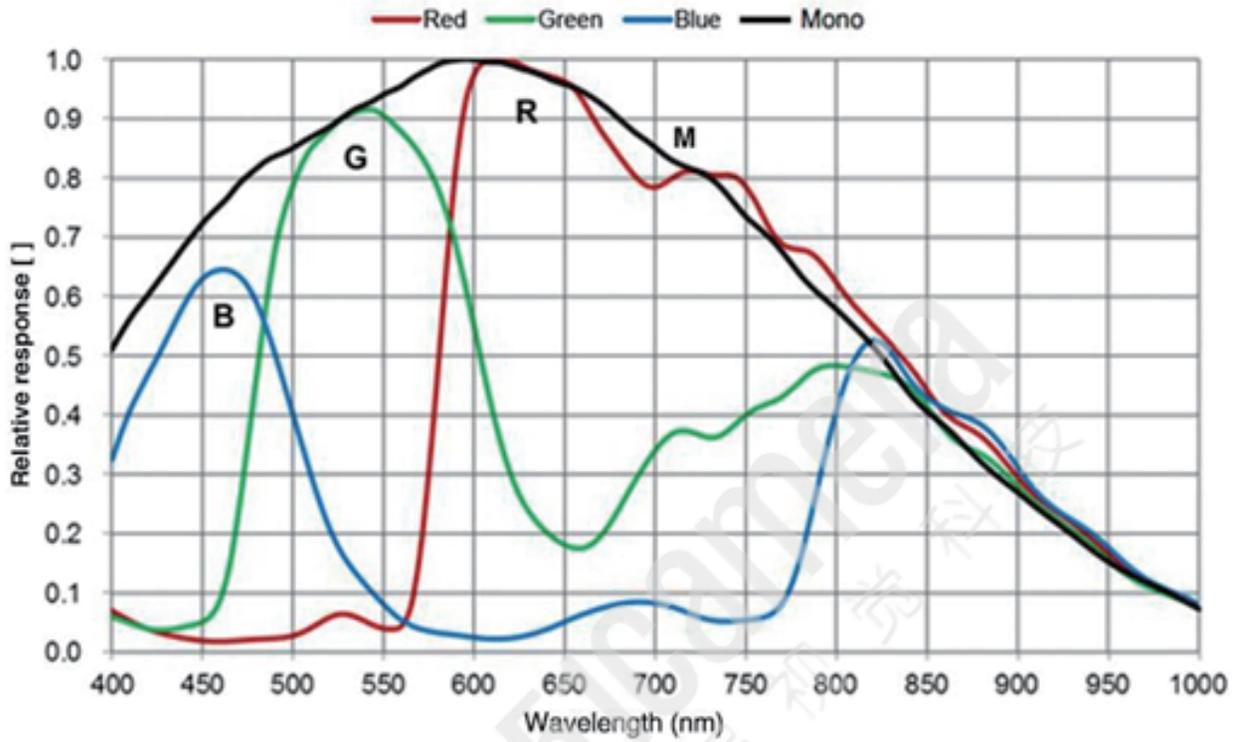
## Specifications

Model	VZ-12MU-M/C 32H10	
Resolution (H x V)	4096 x 3000	
Sensor	Sony IMX253 LQR Global Shutter CMOS	
Pixel Size	3.45 $\mu\text{m}$ $\times$ 3.45 $\mu\text{m}$	
Data Interface	USB 3.0	
Frame Rate	32.1fps@4096 $\times$ 3000	
ADC Bit Depth	10 bit	
Pixel Bit Depth	8 bit and 10 bit	
Exposure Time	UltraShort: 1 $\mu\text{s}$ to 100 $\mu\text{s}$ , Actual Steps: 1 $\mu\text{s}$ Standard: 24 $\mu\text{s}$ to 1s, Actual Steps: 1 row period	
Gain	0dB to 24dB, Default: 0dB, Steps: 0.1dB	
Mono / Color	Color	Mono
Pixel Formats	Bayer RG8 and Bayer RG10	Mono8 and Mono10
Signal Noise Ratio	40.79dB	40.63dB
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	5 VDC via USB cable	
Power Consumption	< 3.5W@5V	
Lens Mount	C	
Dimensions and Weight	36mm x 31mm x 38.8mm (without lens adapter or connectors), 66g	
Programmable Control	Image size, Gain, Exposure time, Trigger polarity, Flash polarity	
Conformity	CE, RoHS, FCC, USB3 Vision, GenICam, KC	

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## Spectral Response



## Ordering Scheme



## Connector Specification

I/O Connector



- |           |                      |
|-----------|----------------------|
| 1: Line0+ | Opto-isolated input+ |
| 2: Ground | GPIO GND             |
| 3: Line0- | Opto-isolated input- |
| 4: NC     | NC                   |
| 5: Line2  | GPIO input/output    |
| 6: Line3  | GPIO input/output    |
| 7: Line1- | Opto-isolated input- |
| 8: Line1+ | Opto-isolated input+ |

Connectors on camera body