

VZ-400U-M/C528H00

Industrial Digital Cameras with USB3.0 Interface



USB[®]
VISION

GEN<i>i>CAM

VZ-400U-M/C528H00 is a monochrome/color USB3.0 Vision camera with the Sony IMX287 global shutter CMOS sensor. Thanks to its extremely compact design (29 mm × 29 mm × 29 mm), robust metal housing, and locking screw connectors, the VZ-400U-M/C528H00 offers an outstanding price-to-performance ratio. VZ-400U-M/C528H00 is ideal for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

VIEWORKS

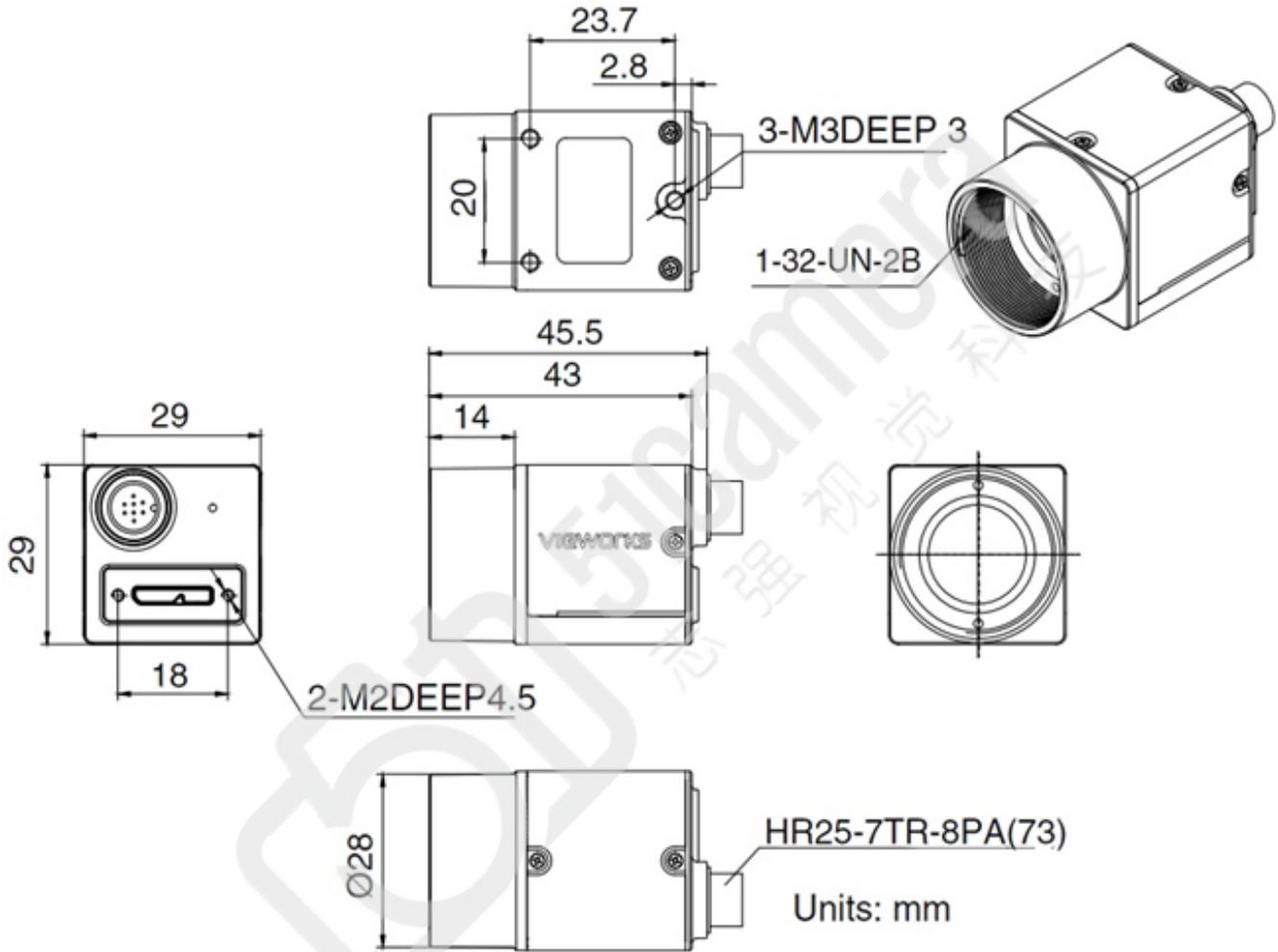
vision.vieworks.com

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Mechanical Dimensions

Unit: mm



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Main Features

- Trigger mode: Frame Start / Frame Burst Start
- Programmable ROI, increased frame rate with partial scan
- Four acquisition controls: Single frame acquisition. Continuous acquisition, Software trigger acquisition, and External trigger acquisition
- 16KB data storage area for saving algorithm coefficients and parameter configuration
- Multiple samples and easy-to-integrate SDKs for various programming tools
- Support LUTs, 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

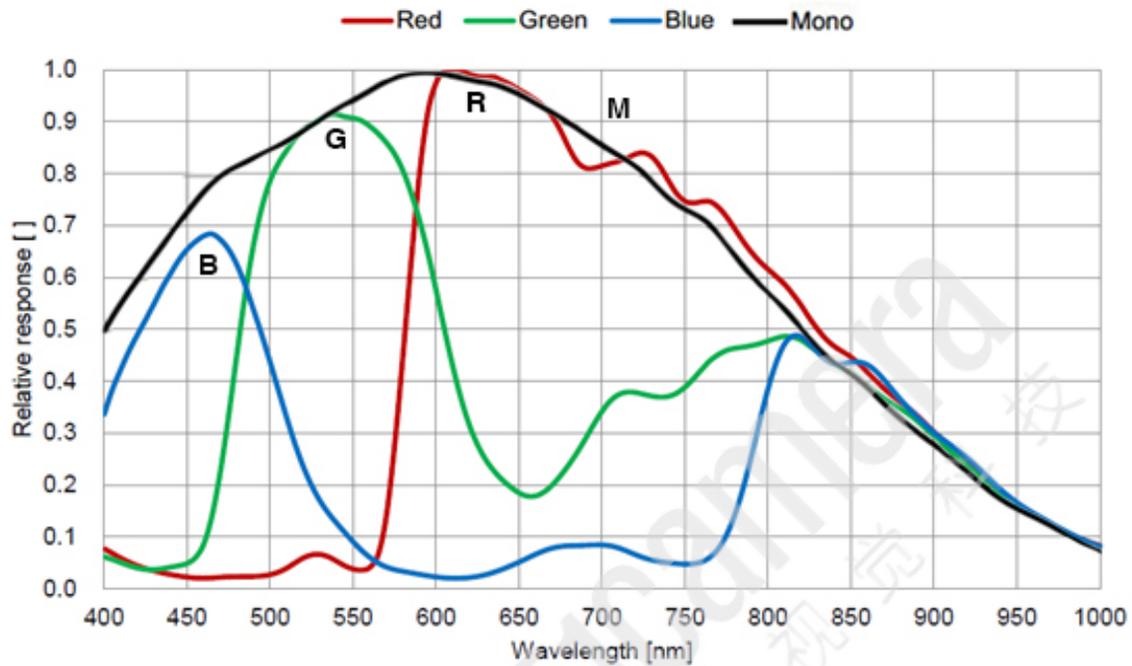
Specifications

| | | |
|-----------------------|---|---------------------------|
| Model | VZ-400U-M/C 528H00 | |
| Resolution (H x V) | 720 x 540 | |
| Sensor | Sony IMX287 Global Shutter CMOS | |
| Pixel Size | 6.9 μm \times 6.9 μm | |
| Data Interface | USB 3.0 | |
| Frame Rate | 528.5 fps @720 \times 540 | |
| ADC Bit Depth | 8 bit, 10bit, and 12bit | |
| Pixel Bit Depth | 8 bit, 10bit, and 12bit | |
| Exposure Time | Ultrashort:1 μs to 100 μs , Actual Steps: 1 μs Standard: 20 μs to 1s, Actual Steps: 1 row period | |
| Gain | 0dB to 24dB, Default: 0dB, Steps: 0.1dB | |
| Mono / Color | Color | Mono |
| Pixel Formats | Bayer RG8, Bayer RG10, and Bayer RG12 | Mono8, Mono10, and Mono12 |
| Signal Noise Ratio | 44dB | 43.46dB |
| 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 | < 2.7W@5V | |
| Lens Mount | C | |
| Dimensions and Weight | 29mm x 29mm x 29mm (without lens adapter or connectors), 65g | |
| Programmable Control | Image size, Gain, Exposure time, Trigger polarity, and Flash polarity | |

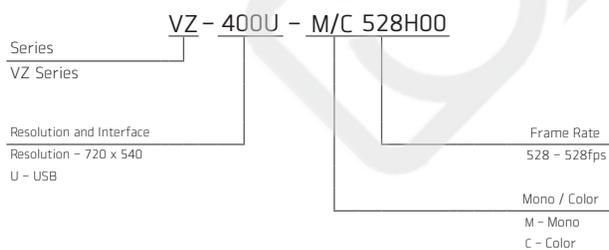
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Spectral Response



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