

# ME2P-1231-32U3M/C

## MERCURY2 PRO Series 12.3MP CMOS USB3.0 Area Scan Camera

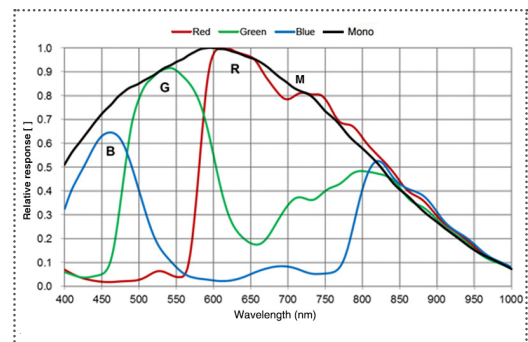


The ME2P-1231-32U3M/C camera is a monochrome/color USB3.0 Vision camera with the Sony IMX253 CMOS sensor. The ME2P-1231-32U3M/C camera has opto-isolated I/Os that adapt to specific needs. Four-side mounting holes provide maximum installation flexibility for ME2P-U3. Thanks to the extremely compact (36mm × 31mm × 38.8mm), robust metal housings and locking screw connectors, the MERCURY2 PRO cameras can secure the reliability of cameras deployed in harsh environments.

### Applications

Suitable for machine vision applications such as industrial inspection, medical, scientific research, education, security and so on.

### Spectral Response



### Features

- Trigger mode: Frame Start /Frame Burst Start
- Support timed exposure mode and triggerWidth exposure mode.
- Two exposure time modes: Standard exposure time mode / UltraShort exposure time mode
- Support Gamma, Binning, Decimation, Digital Shift, Black Level and Flat Field Correction
- Color models support Light source preset, Color Transformation Control and Saturation
- Monochrome models support Noise Reduction and Sharpness
- Support Sequencer Control and Sensor Bit Depth
- Programmable LUTs and User Set Control
- Support Timer and Counter
- Support Remove Parameter Limit to expand the range of exposure, gain, and so on
- 16KB data storage area for saving algorithm coefficients and parameter configuration

## Specifications

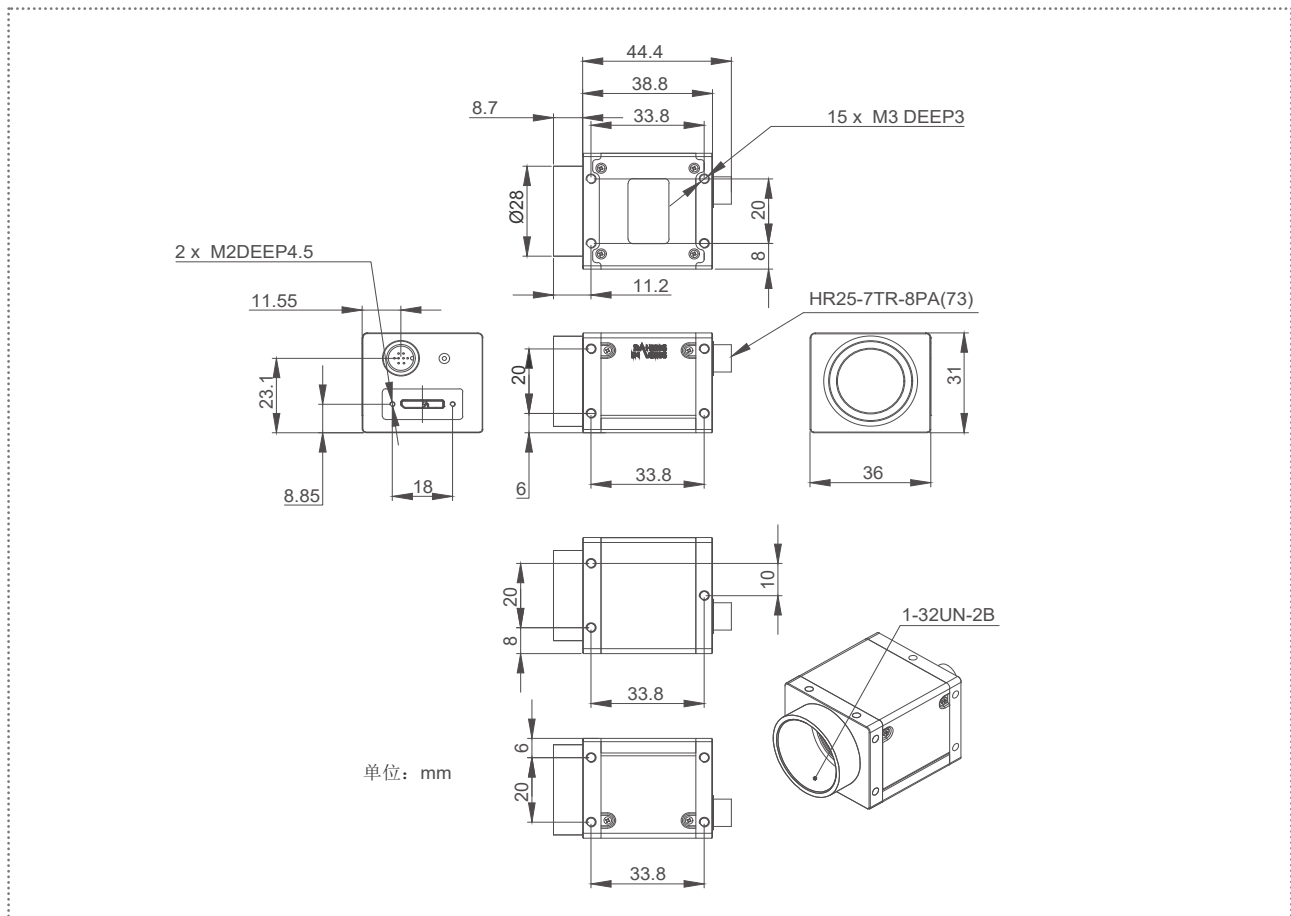
Model	ME2P-1231-32U3C	ME2P-1231-32U3M
Resolution	4096(H) × 3000(V)	
Sensor	Sony IMX253 Global shutter CMOS	
Sensor Format	1.1"	
Pixel Size	3.45μm × 3.45μm	
Frame Rate	32.1 fps	
ADC	8 bit, 10 bit, 12 bit	
Pixel Bit Depth	8 bit, 10 bit, 12 bit	
Mono/Color	Color	Mono
Pixel Formats	Bayer RG8 / Bayer RG10 / Bayer RG12	Mono8 / Mono10 / Mono12
SNR	40.79 dB	40.63 dB
Exposure Time	UltraShort: 1μs~100μs, Actual Steps: 1μs; Standard: 24μs ~ 1s, Actual Steps: 1 row period	
Gain	0dB ~ 24dB; Default: 0dB, Steps: 0.1dB	
Binning	FPGA: 1×1, 1×2, 1×4, 2×1, 2×2, 2×4, 4×1, 4×2, 4×4 Sensor: 1×1, 1×2 (Only for mono model)	
Decimation	Sensor: 1×1, 2×2	
Synchronization	Hardware trigger, software trigger	
Acquisition Mode	Single frame, Continuous, Software trigger, Hardware trigger	
Reverse X/Y	Reverse X/Y	
I/O Interface	1 input and 1 output with opto-isolated, 2 programmable GPIOs	
Data Interface	USB3.0	
Power Supply	Power through USB3.0 interface	
Power Consumption	< 3.5 W @ 5 VDC	
Operating Temp.	0°C ~ +45°C	
Storage Temp.	-20°C ~ +70°C	
Operating Humidity	10% ~ 80%	
Lens Mount	C / CS	
Dimensions	36(W) × 31(H) × 38.8(L) mm (without lens adapter or connectors)	
Weight	66 g	
Software	3rd-party software such as HALCON, MERLIC and LabVIEW	
OS	32bit / 64bit Windows, Linux, Android, ARMv7, ARMv8	
Conformity	CE, RoHS, FCC, ICES, UKCA, USB3.0 Vision®, GenICam®	

I/O Interface



Pin	Definition	Core Color	Description
1	Line 0+	Green	Opto-isolated input +
2	GND	Blue	GPIO GND
3	Line 0-	Grey	Opto-isolated input -
4	NC	Purple	NC
5	Line 2	Orange	GPIO input/output
6	Line 3	Pink	GPIO input/output
7	Line 1-	White Green	Opto-isolated output -
8	Line 1+	White Blue	Opto-isolated output +

Technical Drawing



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