

# GigE Area Scan Cameras

MV-040GC313-GV



- More stable performance
- Gigabit network, data transmission
- New appearance structure, higher installation accuracy

## GigE Area Scan Cameras

### Key Features

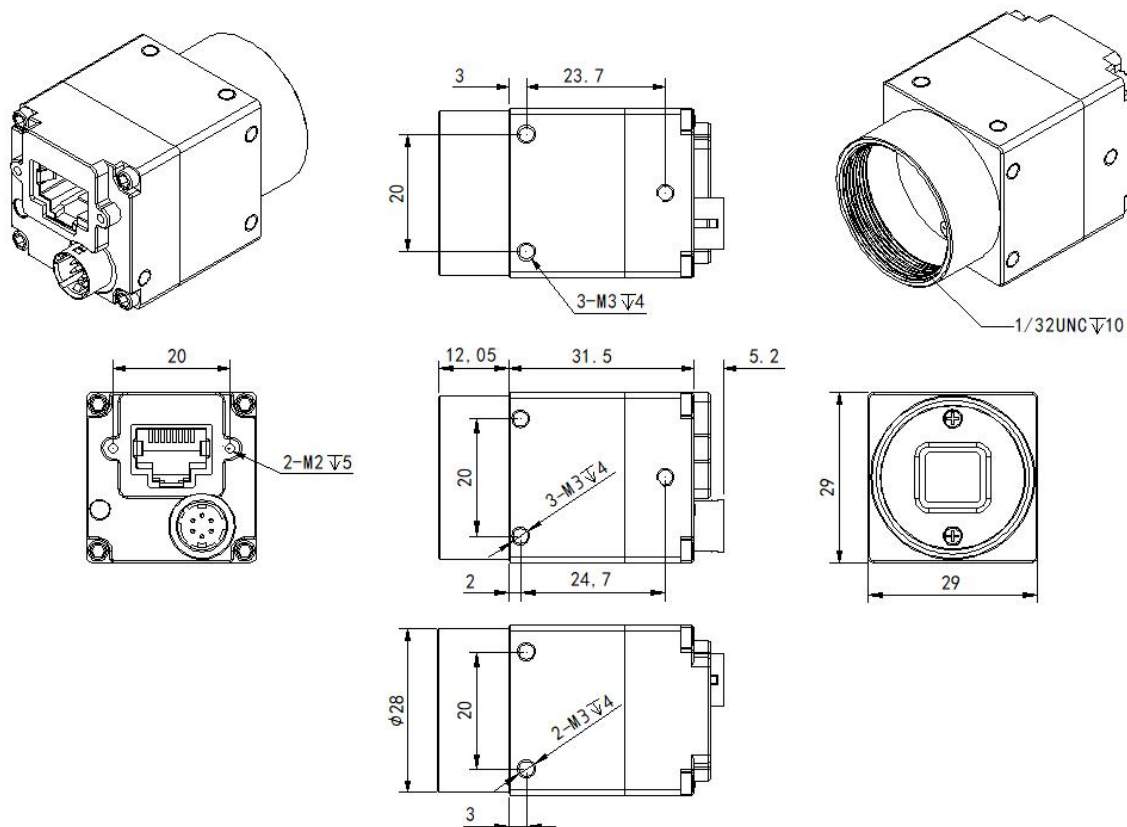
- Gigabit network transmission (compliant with IEEE 802.3 1000Base-T standard, maximum speed 1Gbps)
- 29mmx29mmx31.5mm size, industry common fixing holes
- Support POE power supply (compliant with IEEE 802.3at standard)
- Built-in large-capacity frame buffer, with packet retransmission technology, to ensure reliable and real-time transmission
- Supports GigEVision1.2 and GenICam interfaces.
- Compatible with HALCON, MVS and other third-party vision development software
- Built-in ISP, support gamma, contrast, LUT, reduce host CPU consumption, improve real-time
- Support DHCP, LLA, auto-following NIC mode. Adaptive jumbo frame adjustment, plug and play

### Specifications

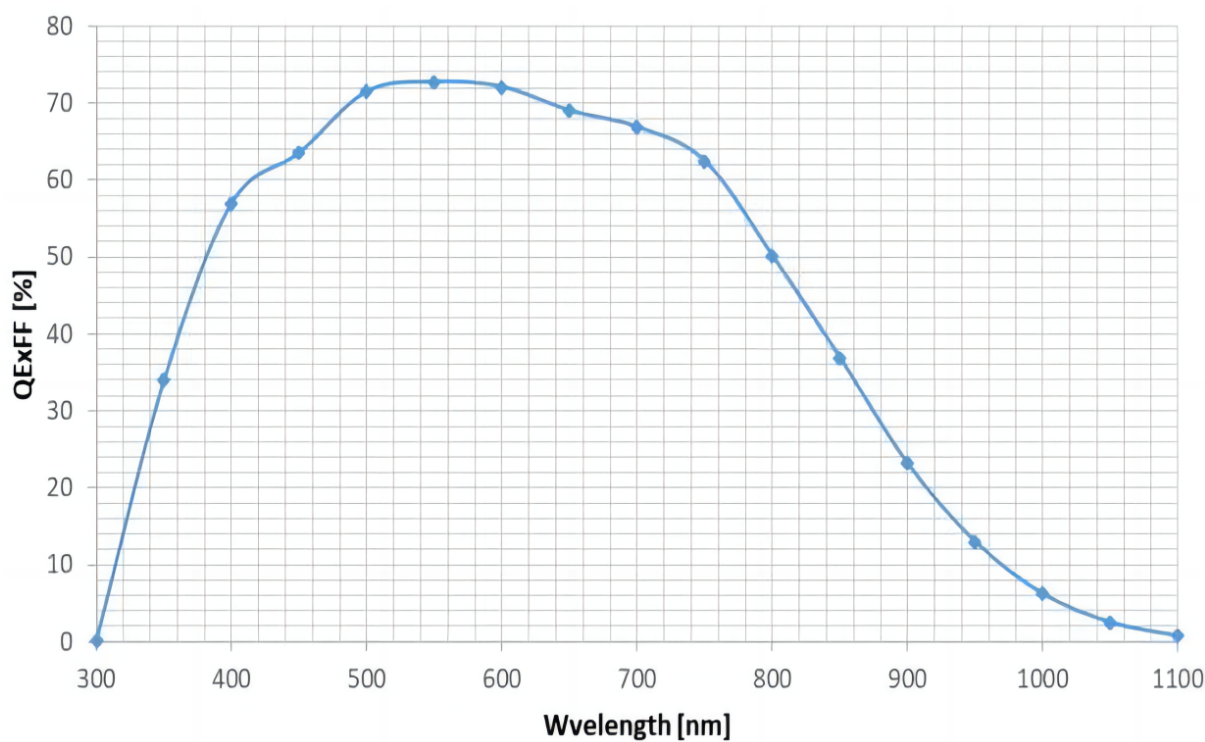
Model parametric	MV-040GC313-GV
	Color GigE Industrial Camera
Performance Parameters	
Sensor Type	CMOS , Global Shutter
Resolution	720×540
Optical Size	1/2.5"    Diagonal    7.2mm
Pixel Size	8um×8um
Mono/Color	Color
Max Frame Rate	300FPS@720×540 Bayer8
HDR	68.5 dB
Gain	1x ~ 15.5x; step 0.2x
Exposure Time	1μs~10sec, step 1μs
Exposure Mode	Support Auto Exposure/Manual Exposure/Single Exposure
Output Image Format	Bayer8 /Bayer12 /Mono8 /Mono12
Pixel Merge	-
Trigger Mode	Hardware Trigger, Software Trigger

Image Cache	1Gbit
ISP Functions	White balance, color matrix correction, RGB gain, color to black/white, Contrast adjustment, Gamma correction, look-up table, sharpness adjustment, noise reduction, black level correction, flat field correction, spot elimination, horizontal/vertical mirroring support
Data Interface	Gigabit Ethernet port, RJ45 connector with fixed screw hole
I/O Interface	1 optocoupler input, 1 optocoupler output, 1 bi-directional IO (no optocoupler isolation)
Power supply	POE power supply or DC 12-24V ( $\pm 10\%$ ) power supply
Typical Power Consumption	2.2W@24VDC
<b>Structure and environmental parameters</b>	
Lens Interface	C port, optical back focus 17.5mm
IO and Power Interface	6 pole industrial circular connector
Filter	380nm-650nm bandpass filter
Dimension	29mm x 29mm x 31.5mm (lens connector not included)
Weight	Approx. 51.6g
IP Protection Rating	IP40 (with lens and cables properly installed)
Temperature	Operating Temperature: $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$ , Storage Temperature: $-20^{\circ}\text{C} \sim 70$
Humidity	5% $\sim$ 90%RH (non-condensing)
<b>Software and Protocols</b>	
Software	SDK development kit, and associated demo/calibration software BasedCam3
Operating Systems	Windows7/10 32/64bit; PC Linux 32/64bit
Protocols/Standards	GigE Vision V1.2, GenICam
Compatible Software	NI MAX, Halcon, VisionPro, MV Viewer, MVS
Certifications	CE, RoHS

## Dimension (Unit: mm)



## Spectral response



## Interface Definition

Pin	Color	Definition	Signal Source	Description	Isolated/non-isolated	Interface Circuit	Input/Output Parameters
1	Red	POWER_IN		DC Power Supply Positive			DC 12V~24V (±10%)
2	Green	TRIG+	Line 1+	Trigger input positive	Isolated	optocoupler	Low effective: 0-1V High effective: 5-24V
4	Yellow	Flash_out+	Line 2+	Flash output positive			Optocoupler current limit: 20mA
5	Brown	COM	Line 1/2-	Trigger/flash optocoupler common (negative)			
3	White	GPIO	Line 3+	General Purpose Inputs and Outputs	non-isolated		Input low effective: 0-0.7V Input high valid: 2.9-3.6V Output low level: 0V Output high level: 3.6V
6	Black	GND	Line 3-	Power negative/GPIO ground			
	Transparent	shielding cable		Connect to camera housing			Remarks: Transparent heat-shrinkable tubing for shielded wire cover
Trigger Block		