

Independent
Development

MV-GE31GC/GM-90

The 90 degree right angle industrial camera sensor surface designed by MindVision is only 29mm in vertical direction, which solves the problem of equipment installation space limitation on the market and brings new solutions to industry users; The performance and mounting holes of cameras of the same model are basically the same, so customers can achieve seamless replacement.

Application Industry:

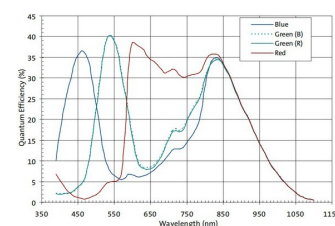
It is suitable for electronics and semiconductor, factory automation, food and beverage, pharmaceutical packaging, image measurement.



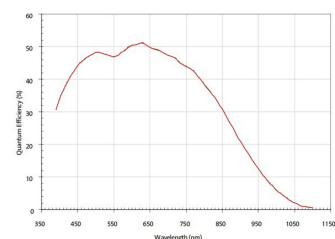
Product Features:

- 100 meters long-distance stable transmission, optional POE power supply.
- Compatible with VISION standard, the free drive directly supports software such as Halcon and VisionPro.
- Support external trigger and strobe synchronization, up to 7 GPIO, all opto-isolated.
- Support 8bit to 12bit lossless format output.
- SDK supports Windows, Linux, Mac OS systems.
- Unique data packet retransmission technology ensures reliable data transmission.
- Excellent SDK design, as easy as using a USB camera, plug and play.
- Support multiple cameras working at the same time, the number is not limited, and can be networked arbitrarily.

Spectral response curve:



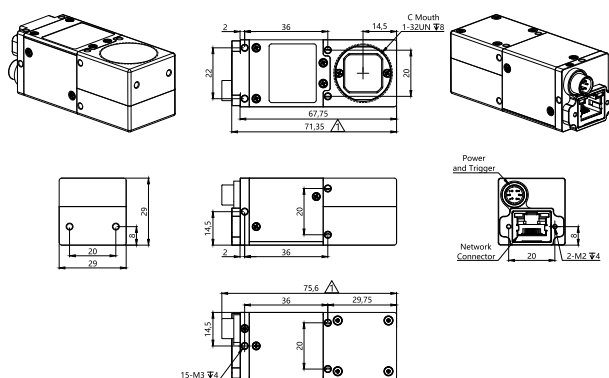
MV-GE31GC



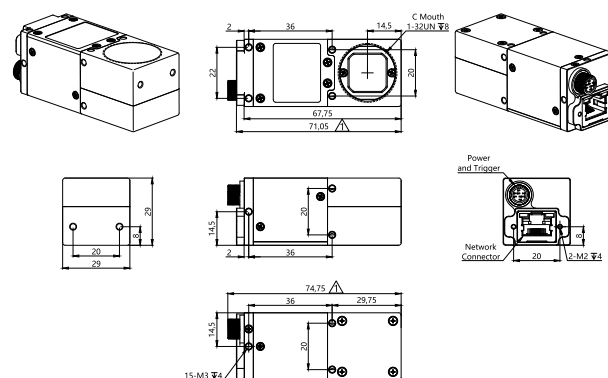
MV-GE31GM

Mechanical Specification:

unit:mm



GE-T1-C-90



GE-T-CL-90

TECHNICAL PARAMETER

Specifications	Model	MV-GE31GC-90	MV-GE31GM-90
Sensor		1/3" CMOS	
Shutter type		Global shutter	
Camera type		Color	Mono
Pixel size		6umx6um	
Effective pixels		0.3MP	
Resolution @ frame rate		752X480MAX@108.25FPS	
Exposure mode		Frame exposure	
Signal to Noise Ratio		45dB	
Dynamic range		55dB	
Sensitivity		4.8 V/lux-sec@550nm	
GPIO		1 way optical isolation input, 1 way optical isolation output; optional 3 inputs and 4 outputs	
Output pixel width		12bit	
AD width		10bit	
Frame buffer		128M Bytes	
Exposure time		0.017~57.1ms	
Maximum gain (multiple)		4	
User EEPROM		2K Bytes	
Video output format		Bayer GR 8/12bit	Mono 8/12bit
Visual standard protocol		GigE Vision V1.2 GenICam	
Lens interface		C-mount	
Port		Gigabit Network and POE(Optional)	
Power supply		12~24V/POE , 48~57V(POE is optional)	
Power		<2.5W	
Boundary dimension		29(mm)X29(mm)X67.75(mm) (Lens base and rear shell interface are not included)	
Weight		<100g	
Working temperature		0~50℃	
Working humidity		20~80% (No Condensation)	
Storage temperature		-30~60℃	
Storage humidity		20~95% (No Condensation)	
Operating system		WINXP, WIN7 / 8/10 32 & 64-bit systems, Linux and ARM Linux drivers and Android platform drivers MAC OS system	
Drive program		Directshow components Halcon special components Labview dedicated drive OXC components TWAIN components	
Programming language		C/C++/C#/VB6/VB.NET/Delphi/BCB/Python/Java	
Other functions		Support any size ROI custom resolution, contrast and gamma adjustment, saturation adjustment, white balance correction, black level correction, custom dead point coordinate correction,ISP image processing acceleration, 3D noise reduction, custom LUT table, frame rate adjustment, custom camera name, etc.	

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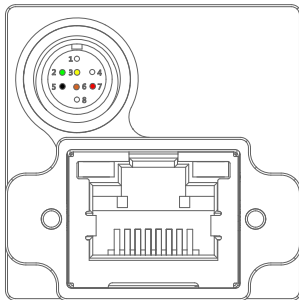
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GE/GEF/GED/ Camera Suffix Selection Table

Function Suffix	Airhead Wire Sequence Definition Diagram	POE power supply	Dual Aerohead Expansion IO	Shrapnel Type Airhead Connector	Threaded Airhead Connector	Lens interface C-mount	Lens interface CS-mount	State
-T-CL	1				●	●		Recommend
-T-L	1				●		●	Book
-TPO-CL	2	●	●		●	●		Book
-T1-C	3			●		●		Recommend
-T1P-C	3	●		●		●		Book
-T	4			●			●	Planned shutdown
-TPO	5	●	●	●			●	Planned shutdown
-TPO-C	5	●	●	●		●		Planned shutdown

-T-CL、-T-L Line Sequence Definition1



Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	White	GPI1+/TRIG_IN+	GPI1 positive terminal/ Trigger input positive terminal	Default is trigger input
	2	Green	GP01+/STRB_OUT +	GP01 positive terminal/ Strobe output positive terminal	Default is strobe output
	3	Yellow	GP01-/STRB_OUT-	GP01 negative terminal/ Strobe output negative terminal	Default is strobe output
	4	Empty foot			
	5	Black	PWRGND	Camera power input negative terminal	
	6	Brown(high soft blue)	GPI1-/TRIG_IN-	GPI1 negative terminal/ Trigger input negative terminal	Default is trigger input
	7	Red	PWR12V	Camera power input positive terminal	
	8	Empty foot			

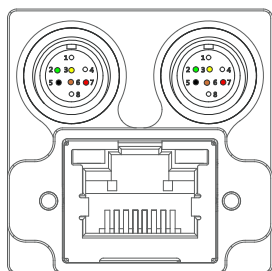
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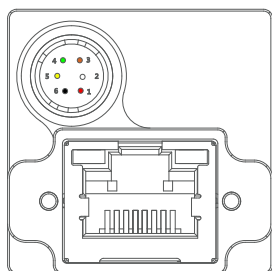
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-TPO-CL Line Sequence Definition2



Port	Pin Number	Line Color	Signal Name	Signal Description	Remarks
Port A	1	White	GPI1+/TRIG_IN+	GPI1 positive terminal/ Trigger input positive terminal	Default is trigger input
	2	Green	GPO1+/STRB_OUT +	GPO1 positive terminal/ Strobe output positive terminal	Default is strobe output
	3	Yellow	GPO1-/STRB_OUT-	GPO1 negative terminal/ Strobe output negative terminal	Default is strobe output
	4	Empty foot			
	5	Black	PWRGND	Camera power input negative terminal	
	6	Brown (High soft blue)	GPI1-/TRIG_IN-	GPI1 negative terminal/ Trigger input negative terminal	Default is trigger input
	7	Red	PWR12V	Camera power input positive terminal	
	8	Empty foot			
Port B	1	White	GPO4+	GPO4 positive terminal output	
	2	Green	GPO2+	GPO2 positive terminal output	
	3	Yellow	GPO3+	GPO3 positive terminal output	
	4	Empty foot			
	5	Black	GPIO_COM	GPIO common negative terminal	
	6	Brown	GPI2+	GPI2 positive terminal output	
	7	Red	GPI3+	GPI3 positive terminal output	
	8	Empty foot			

-T1-C、 -T1-C Line Sequence Definition 3



Port	Pin Number	Line Color	Signal Name	Signal Description	Remarks
Port A	1	Red	PWR12V	Camera power input positive terminal	
	2	White	GPI1+/TRIG_IN+	GPI1 positive terminal/ Trigger input positive terminal	Default is trigger input
	3	Brown	GPO2+	GPO2 output positive terminal	Empty foot
	4	Green	GPO1+/STRB_OUT+	GPI1 positive terminal/ Strobe output positive terminal	Default is strobe output
	5	Yellow	GPO1-/STRB_OUT- /TRIG_IN-	GPO1 negative terminal/Strobe output negative terminal/Trigger input negative terminal	GPIO common negative terminal
	6	Black	PWRGND	Camera power input negative terminal	

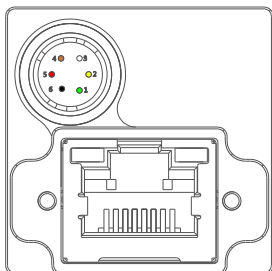
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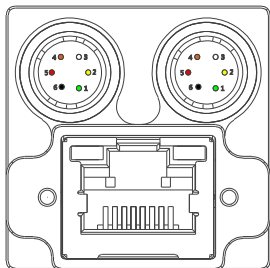
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-T Line Sequence Definition 4



Port	Pin number	Line color	Signal name	Signal name	Remarks
Port A	1	Green	GP01+/STRB_OUT+	GP01 positive terminal/ Strobe output positive terminal	Default is strobe output
	2	Yellow	GP01-/STRB_OUT-	GP01 negative terminal/ Strobe output negative terminal	Default is strobe output
	3	White	GPI1+/TRIG_IN+	GPI1 positive terminal/ Trigger input positive terminal	Default is trigger input
	4	Brown	GPI1-/TRIG_IN-	GPI1 negative terminal/ Trigger input negative terminal	Default is trigger input
	5	Red	PWR12V	Camera power input positive terminal	
	6	Black	PWRGND	Camera power input negative terminal	

-TPO、-TPO-C Line Sequence Definition 5



Port	Pin number	Line color	Signal name	Signal description	Remarks
Port A	1	Green	GP01+/STRB_OUT+	GP01 positive terminal/ Strobe output positive terminal	Default is strobe output
	2	Yellow	GP01-/STRB_OUT-	GP01 negative terminal/ Strobe output negative terminal	Default is strobe output
	3	White	GPI1+/TRIG_IN+	GPI1 positive terminal/ Trigger input positive terminal	Default is trigger input
	4	Brown	GPI1-/TRIG_IN-	GPI1 negative terminal/ Trigger input negative terminal	Default is trigger input
	5	Red	PWR12V	Camera power input positive terminal	
	6	Black	PWRGND	Camera power input negative terminal	
Port B	1	Green	GP02+	GP02 positive terminal output	
	2	Yellow	GP03+	GP03 positive terminal output	
	3	White	GP04+	GP04 positive terminal output	
	4	Brown	GPI2+	GPI2 positive terminal input	
	5	Red	GPI3+	GPI3 positive terminal input	
	6	Black	GPIO_COM	GPIO common negative terminal	

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