MV0-D2048-C01-160-G2

The camera series MV0-D2048(I)-C01-160-G2 is based on the CMOSIS CMV4000 V3 CMOS image sensor

Features

- CMOSIS CMV4000 V3 image sensor
- 2048 x 2048 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 26fps @ full resolution
- Global shutter
- Available in monochrome, NIR and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface (PoE)

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Quantum Efficiency Image Sensor

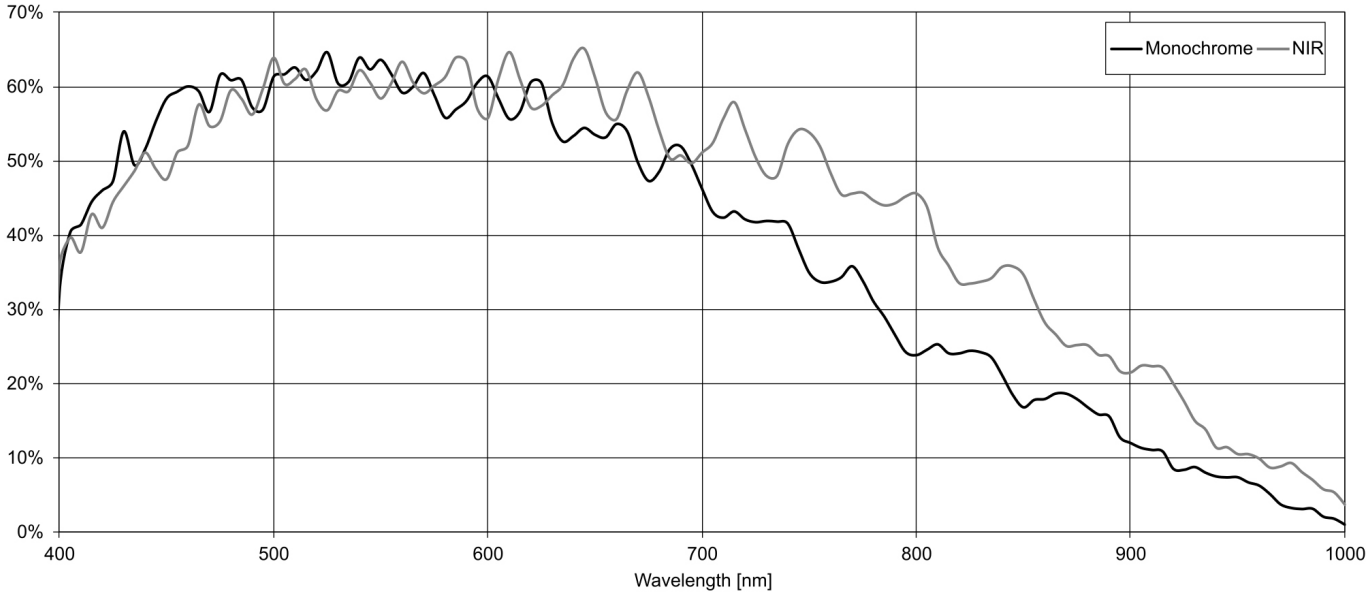

Image Sensor Specifications

Manufacturer / Type	CMOSIS, CMV4000
Technology	CMOS
Optical format	1"
Optical diagonal	15.92mm
Resolution	2048 x 2048
Pixel size	5.5µm x 5.5µm
Active optical area	11.26mm x 11.26mm
Dark current	125e-/s
Read out noise	13e-
Full well capacity / SNR	11ke- / 105:1
Spectral range	Monochrome: 330 to 930nm (to 10% of peak responsivity) NIR: 330 to 970nm (to 10% of peak responsivity)
Responsivity	Monochrome: 1200 x 10^3 DN / (J/m²) @ 540nm / 8bit NIR: 900 x 10^3 DN / (J/m²) @ 850nm / 8bit
Quantum Efficiency	Monochrome: < 57% NIR: < 60% Color: < 45%
Optical fill factor	42% without micro lenses
Dynamic range	60dB
Characteristic curve	Linear, Piecewise linear
Shutter mode	Global shutter

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Camera Specifications

Interface	GigE
Frame rate	26fps
Pixel clock	n/a
Camera taps	n/a
Greyscale resolution	8Bit / 10Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	10µs - 419ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Configurable region of interest (ROI), Up to 8 regions of interest (MROI), Decimation in y-direction, 2 look-up tables (12-to-8Bit) on user-defined image region (Region-LUT), Constant frame rate independent of exposure time, Crosshairs overlay on the image, Temperature monitoring of camera, Camera informations readable over SDK, Ultra low trigger delay and low trigger jitter, Extended trigger input and strobe output functionality, Status line in picture
Operation temperature / moisture	0°C ... + 50°C / 20% ... 80%
Storage temperature / moisture	-25°C ... 60°C / 20% ... 95%
Power supply	PoE (compliant according to IEEE 802.3af standard Class: 2)
Power consumption	< 4.2W
Lens mount	C-Mount
I/O Inputs	2x Opto-isolated
I/O Outputs	1x Opto-isolated
Dimensions	30 x 30 x 54.7mm³
Mass	75g
Connector I/O (Power)	Binder 4-pole (mating plug M5 x 0.5, Series 707)
Connector Interface	X-coded M12
Conformity	CE / RoHS / WEEE
IP Code	IP40

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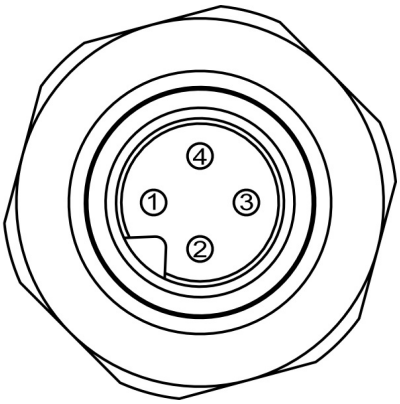
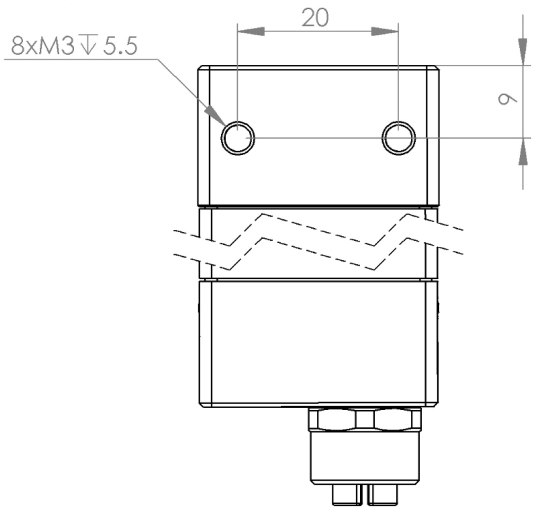
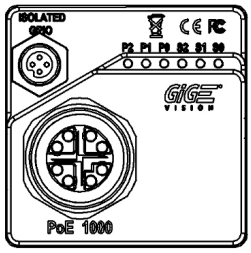
Connectors

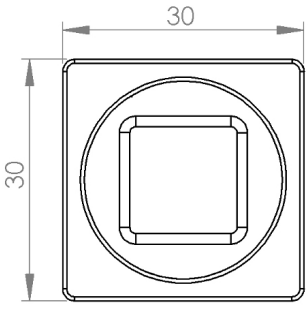
Pin	I/O Type	Name	Description
1	I	ISO_IN	Trigger input (opto-isolated)
2	PWR	ISO_GND	I/O GND 0V
3	O	ISO_OUT	Strobe output (opto-isolated)
4	n.a.	Reserved	Do not connect

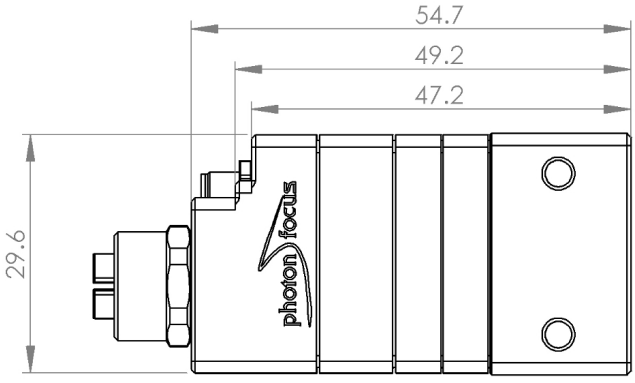


Dimensions









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Explanation

DN DigitalNumber (equals to LSB)

e^- Electrons

Order Information

MV0-D2048-C01-160-G2	BW model
MV0-D2048I-C01-160-G2	NIR model

Compatibility

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