MV1-D1600-120-CL

The camera series MV1-D1600(C)-120-CL is based on the e2v EV76C570 CMOS image sensor

Features

- e2v EV76C570 CMOS image sensor
- 1600 x 1200 pixel resolution
- Suitable for standard and low light applications
- Up to 54fps @ full resolution
- Global shutter
- Available in monochrome and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- CameraLink® interface

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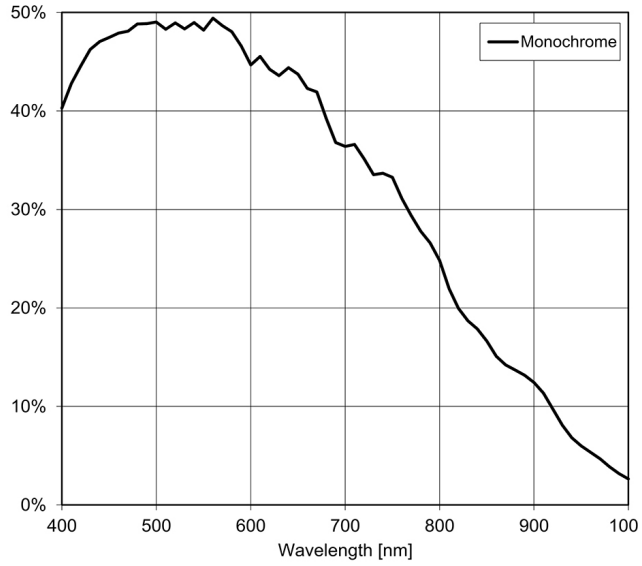
Quantum Efficiency Image Sensor



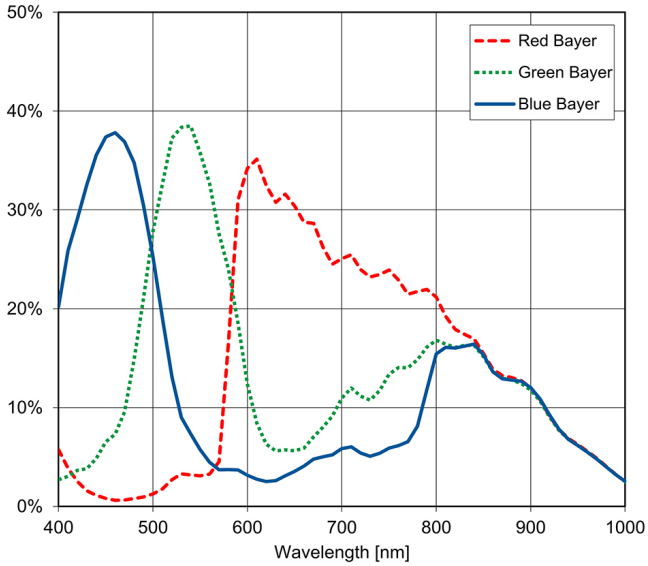


Image Sensor Specifications

Manufacturer / Type	e2v, EV76C570
Technology	CMOS
Optical format	1/1.8"
Optical diagonal	9mm
Resolution	1600 x 1200
Pixel size	4.5µm x 4.5µm
Active optical area	7.2mm x 5.4mm
Dark current	280e-/s
Read out noise	15e-
Full well capacity / SNR	7ke- / 84:1
Spectral range	Monochrome: 350 to 970nm (to 10% of peak responsivity) Color: 390 to 670nm (to 10% of peak responsivity)
Responsivity	Monochrome: 982 x 10^3 DN / (J/m²) @ 540nm / 8bit Color: 772 x 10^3 DN / (J/m²) @ 540nm / 8bit
Quantum Efficiency	Monochrome: < 49% Color: < 38%
Optical fill factor	60%
Dynamic range	52dB
Characteristic curve	Linear
Shutter mode	Global Shutter

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Camera Specifications

Interface	Camera Link
Frame rate	54fps
Pixel clock	60MHz
Camera taps	2
Greyscale resolution	8Bit / 10Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8bit
Exposure time range	13µs - 279ms
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), Decimation in x- and 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	+12VDC (-10%) ... +12VDC (+10%)
Power consumption	< 2W
Lens mount	C-Mount (CS-Mount optional)
I/O Inputs	1x Opto-isolated
I/O Outputs	1x Opto-isolated
Dimensions	55 x 55 x 32mm³
Mass	164g
Connector I/O (Power)	Binder 7-pole (mating plug 99-0421-00-07)
Connector Interface	CameraLink Base (MDR)
Conformity	CE / RoHS / WEEE
IP Code	IP40

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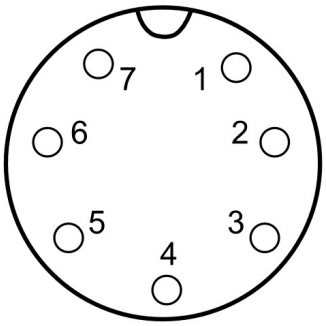
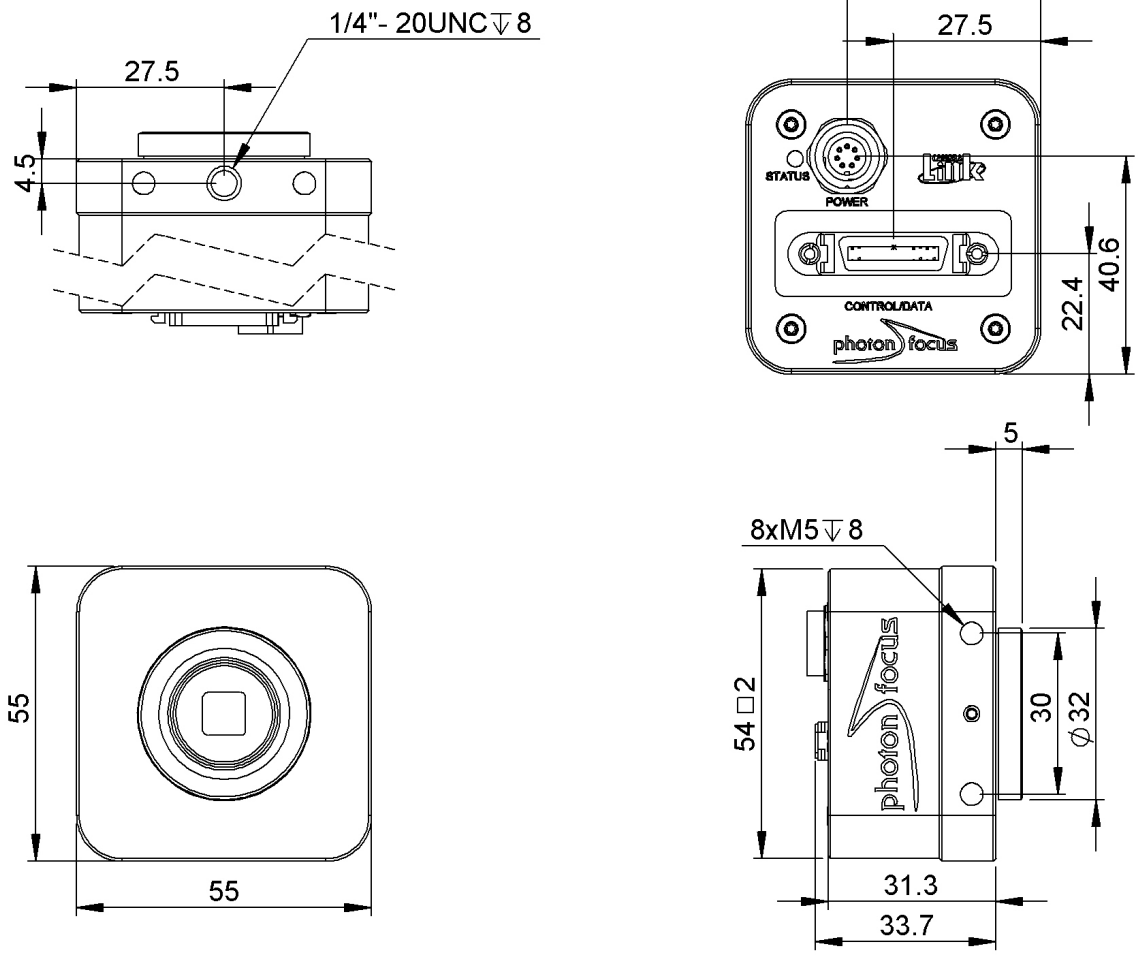
Connectors

Pin	I/O Type	Name	Description
1	PWR	CAMERA_PWR	Camera Power 12VDC
2	PWR	CAMERA_GND	Camera GND 0V
3	O	RESERVED	Do not connect
4	PWR	STROBE-VDD	+5 ... +15 VDC
5	O	STROBE	Strobe control (opto-isolated)
6	I	TRIGGER	External trigger (opto-isolated), +5 .. +15VDC
7	PWR	GROUND	Signal ground (for opto-isolated strobe signal)



Dimensions



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Explanation

DN DigitalNumber (equals to LSB)

e^- Electrons

Order Information

MV1-D1600-120-CL-10	BW model
MV1-D1600C-120-CL-10	Color imager model

Compatibility

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