

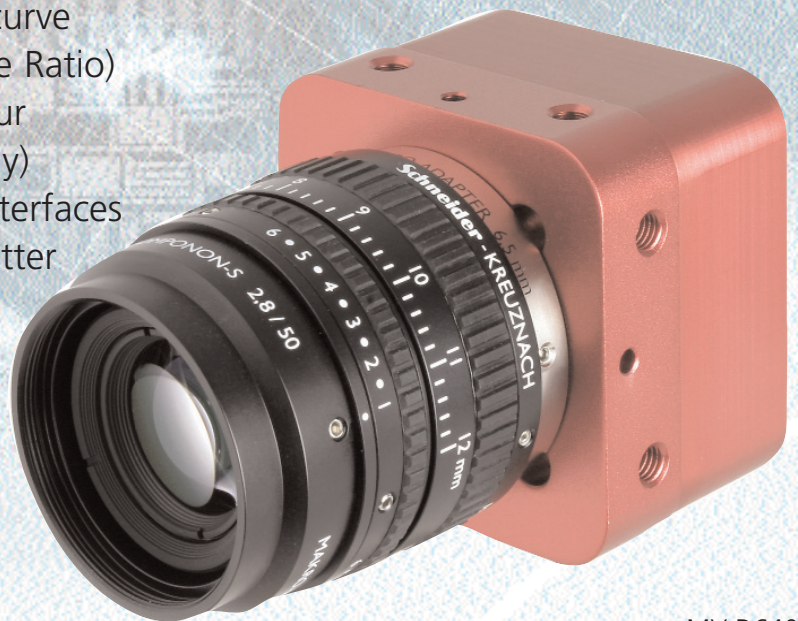
CMOS Cameras

MV-D640 SERIES

High-Speed VGA

Benefits

- Superior colour rendition
- Up to 200 fps at full resolution (CameraLink™ only)
- Exceptional linear response curve
- Superior SNR (Signal to Noise Ratio)
- 10 or 8 bit greyscale or colour resolution (CameraLink™ only)
- CameraLink™ and USB2.0 interfaces
- Ultra low trigger delay and jitter
- Integrated filter holder



MV-D640

Application examples

Machine vision

- Standard vision applications
- Surface inspection
- Colour control
- Packaging inspection
- Fruit sorting
- Quality control
- Colour line scan (640 x 2 pixels)

Motion analysis

- Slow-motion sequences
- Biomedical applications
- Sport applications

MV-D640 SERIES

High-Speed VGA

- Digital 1/2" CMOS camera with 640 x 480 pixels (VGA-Standard)
- Up to 200 frames per second with full resolution
- Built-in real time Bayer interpolation reducing your CPU load with USB2.0 camera models
- No motion artefacts due to global shutter
- No image lags, no smear and no blooming
- Selectable window (Region of Interest - ROI) enables higher frame rates
- Options: monochrome and colour
- CameraLink™ or USB2.0 interface
- Compact & robust industrial housing

MV-D640C-33-CL-10	MV-D640C-66-CL-10	MV-D640C-48-U2-8
MV-D640-33-CL-10	MV-D640-66-CL-10	MV-D640-48-U2-8

Image Sensor	
Technology	CMOS active pixel
Scanning system	Progressive scan
Optical format / diagonal	1/2" / 7.92 mm
Resolution	640 x 480 pixels
Pixel size	9.9 x 9.9 μm^2
Active optical area	6.34 x 4.75 mm ²
Random noise	< 0.59 DN RMS @ 8 bit / gain = 1
Fixed pattern noise (FPN)	< 1.5 DN RMS @ 8 bit / gain = 1
Full well capacity	90 ke ⁻
Spectral range	400 nm ... 1,000 nm
Responsivity	480 x 10 ³ DN / (J/m ²) @ 630 nm / 8 bit / gain = 1 / monochrome (approximately 2600 DN / (lux s) @ 630 nm / 8 bit / gain = 1 / monochrome)
Optical fill factor	50%
Dynamic range	60 dB, (SNR 48 dB)
Colour format	Colour (RGB Bayer) or Monochrome
Characteristic curve	Linear
Shutter mode	Global shutter
Readout mode	Sequential integration and readout or readout during exposure

Camera			
Exposure time	40 μs ... 1.3 s / 10 μs steps		
Frame rate	100 fps	200 fps	129 fps / 42 fps (24 bit colour)
Pixel clock	33 MHz	33 or 66 MHz	48 MHz
Camera taps	1		
Greyscale resolution	10 bit / 8 bit		8 bit
Analogue gain	1 ... 18		
Configuration interface	CL SERIAL (9600 baud)		
Trigger modes	Camera as master: • Free running (non triggered) • Edge controlled Camera as slave: • Edge controlled	• Opto isolated trigger input • Interface controlled	
Features	• Region of Interest (ROI) • External clock available		• Region of Interest (ROI)
Interface	CameraLink™ base configuration		USB 2.0
Operating temperature	0 °C ... +60 °C		
Power supply	+ 5V DC + 10% / -5%		+ 12V DC + / -10%
Power consumption	1.5 W	1.7 W	3.3 W
Lens mount	C-Mount		
Dimensions	55 x 55 x 37 mm ³		55 x 55 x 48 mm ³
Mass	200 g		
Conformity	CE / UL		
Special	Microbench compatible mountings, adjustable backfocus		

Software	
Camera control	PFRemote™ graphical user interface (GUI) and PFLib (SDK); for USB: MicroDisplay GUI + SDK

For more information about our worldwide distributors please visit our website.
Photonfocus cannot be held responsible for any technical or typographical errors.

