SVS-VISTEK

SVCam-EVO

Dual GigE and Camera Link in 1, 2, 4, 8 and 12 MegaPixel, standard- and IP67-versions

GiGE VISION™ CAMERA Link PoCL®

Scale your vision.

SVCam-EVO

Dual GigE and Camera Link in 1, 2, 4, 8 and 12 MegaPixel Versions

A maximum of high-tech in a minimal enclosure – this was our goal for the SVCam-EVO series. EVO stands for EVOLUTION in the truest sense of the word. The EVO series was designed to offer extreme performance using high-end Kodak sensors featuring a wide dynamic range while maintaining a compact and robust housing. SVS-Vistek's unique overclocking technology enables superb imaging performance to be combined with the highest possible frame rates.

SVCam-EVO represents the latest level of the most common and relevant camera interfaces in the machine vision industry. Dual-Gigabit Ethernet and Camera Link interfaces – it's your choice. Both interfaces are internationally standardized for the highest data transfer rates between camera and PC, ensuring easy integration into both new and existing imaging systems.

With their cutting-edge electronics design and the use of quad-tap sensors the EVO cameras offer very high frame rates at extremely low noise levels. Sophisticated processing of the critical analog CCD video signal by Correlated Double Sampling (CDS) leads to significant noise reduction. Straight forward conversion into digital signals results in an excellent signal-to-noise ratio. Additionally, the integration of intelligent processing offers various modes for exposure time and trigger control settings. The compact housing allows installation even in limited space conditions.

The SVCam-EVO series provides for quick return-on-investment for demanding imaging systems by delivering an unbeatable combination of image quality, speed, features and reliability in a compact package.

All camera models of the SVCam-EVO series have the following features:

> Progressive Scan 4-Tap CCD sensors
> Monochrome and color versions (Bayer Pattern)
> Various trigger (int./ext./free running) and exposure modes
> Adjustable gain
> Various binning modes
> C-Mount
> Operating temperature range from -10°C (non-condensing) to +45°C
> Power supply: 10 – 25 V DC

GigE specific features:

> GigE- Vision (Gigabit Ethernet) standard compliant
> DualGigE-Vision interface with max. 240 MB/s Data rate
> Analog Digital Converter (ADC) 14 Bits
> Optional 8 or 12 Bits transferred
> Area of Interest (AOI)
> White Balance for Color Versions
> Isolated I/O-Concept: 2 x Input (0-24 V), 1 x Input RS-422, 2 x Output (24 V, 0,3 A), 1 x Output RS-422, 1 x Serial RS-232
> Sequence Shutter and enhanced Strobe Functionality
> Prepared for Lens- and Pan/Tilt Unit Control
> SDK for Windows XP/7 (32/64 Bit) and Linux available

Camera Link specific features:

> 8, 10 or 12 Bit data (user selectable)
> Refers to Camera Link Base and Medium Standard
> Selectable data rate up to 65 MHz per Tap
> Outstanding frame rates possible
> SW-Config. tool to control the camera via frame grabber interface
> Partial Scan

SVS-VISTEK R&D flexibility

Our unique R&D department is constantly monitoring the market demands to design well tailored, cutting-edge products. It also provides for the flexibility to realize customer specific projects and ideas. Your input is the source of our creativity.

Major advantages of GigE Vision

GigE Vision offers numerous hardware and software advantages for users over the entire range of industrial image processing applications. Most important of these advantages is that the hardware used can be easily and rapidly exchanged, thus shortening design cycles and reducing development costs.

> Cost effective
> Easy to interface
> Flexible; Downwards-compatible to Fast Ethernet and upwards-compatible to 10 GB Ethernet
> Wide range of „off the shelf" industrial-standard plugs and cables up to class IP68
> High bandwidth data transfer rate (120 MB/sec per Output)
> Up to 100 m range without extra switch
> Wide range of applications in image processing
> Any desired number of devices can be connected to the host
> Remote service capability

GigE Cameras

Camera Type	Resolution [Pixel]	Sensor Size	Frame Rate	Pixel Size [µm]	Housing Size [mm]	Lens Mount
evo1050XFLGE Option A / C	1.024 x 1.024	1/2"	147 fps / 121 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo2050XFLGE Option A / C	1.600 x 1.200	2/3"	81.8 fps / 65.4 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo2150XFLGE Option A / C	1.920 x 1.080	2/3"	78 fps / 62.4 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo4050XFLGE Option A / C	2.336 x 1.752	1"	41.6 fps / 33.2 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo4070XFLGE Option A / C	2.048 x 2.048	21.40 mm	39.3 fps / 31.4 fps	7.4 x 7.4	50 x 50 x 48	C-Mount/M42
evo8050XFLGE Option A / C	3.296 x 2.472	22.66 mm	21.8 / 17.5 fps	5.5 x 5.5	50 x 50 x 48	C-Mount/M42
evo12040XFLGE	4.000 x 3.000	23.50 mm	15 fps	4.7 x 4.7	50 x 50 x 47	C-Mount/M42

X: M = Monochrome, C = Color

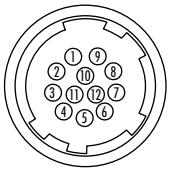
Camera Link Cameras

Camera Type	Resolution [Pixel]	Sensor Size	Frame Rate	Pixel Size [µm]	Housing Size [mm]	Lens Mount
evo1050XFHCPC	1.024 x 1.024	1/2"	180 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo2050XFHCPC	1.600 x 1.200	2/3"	106 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo2150XFHCPC	1.920 x 1.080	2/3"	100 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo4050XFHCPC	2.336 x 1.752	1"	52 fps	5.5 x 5.5	50 x 50 x 48	C-Mount
evo4070XFHCPC*	2.048 x 2.048	21.40 mm	44 fps	7.4 x 7.4	50 x 50 x 48	C-Mount/M42
evo8050XFHCPC	3.296 x 2.472	22.66 mm	26.8 fps	5.5 x 5.5	50 x 50 x 48	C-Mount/M42

X: M = Monochrome, C = Color, *Preliminary

Connector pin-out

Standard



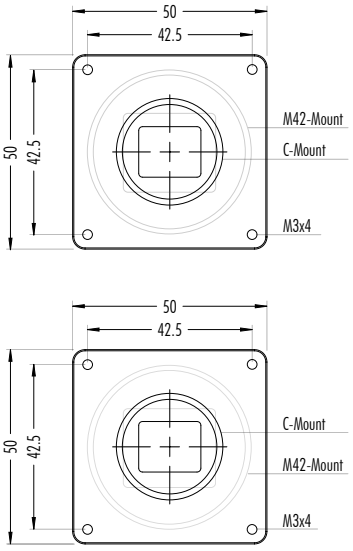
1 VIN- (GND)
2 VIN+ (10V to 25V DC)
3 RXD (RS232)
4 TXD (RS232)
5 IN1 (0-24V)
6 IN2 (0-24V)
7 OUT1 (open drain max. 24V, 0.3A)
8 OUT2 (open drain max. 24V, 0.3A)
9 IN3+ (RS422)
10 IN3- (RS422)
11 OUT3+ (RS422)
12 OUT3- (RS422)

IP67 version

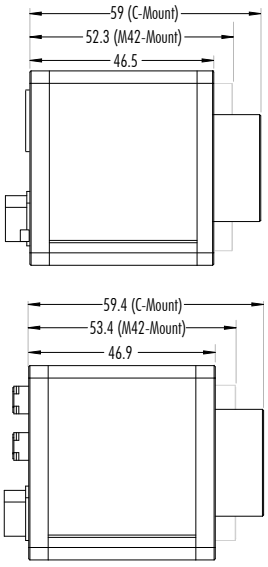
1 VIN+ (10 V to 25 V DC)
2 VIN- (GND)
3 RXD (RS232)
4 TXD (RS232)
5 IN1 (0-24V)
6 IN2 (0-24V)
7 OUT1 (open drain max. 24 V, 0.3A)
8 OUT2 (open drain max. 24 V, 0.3A)
9 IN3+ (RS422)
10 IN3- (RS422)
11 OUT3+ (RS422)
12 OUT3- (RS422)

Dimensions [mm]

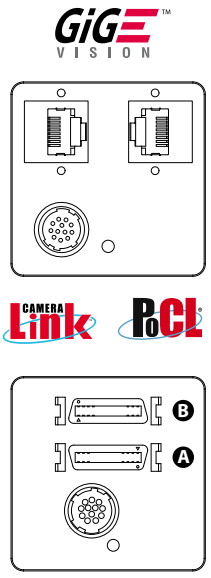
Front view



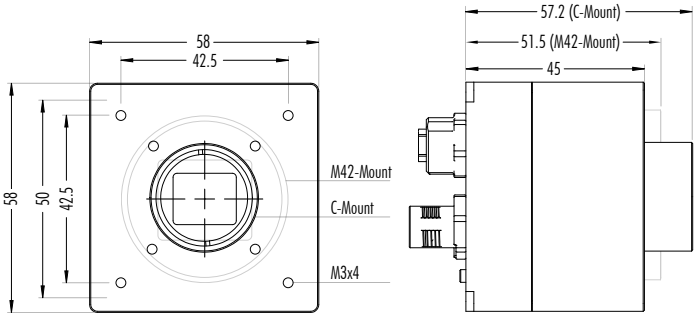
Side view



Rear view



IP67 version



Application Areas

SVCam cameras are used successfully in a wide range of different industries, e.g.:

> Aerospace
> Automotive
> Beverage
> Food
> Information
> Mechanical engineering
> Medical technology
> Optical metrology
> Pharmaceutical
> Photovoltaic/power engineering
> Plastics
> Printing
> Semiconductor
> Timber
> Traffic monitoring
> Transportation systems

SVCam – High-performance CCD cameras made by SVS-VISTEK

"SVCam" stands for high-performance CCD cameras developed and manufactured in modular designs which can be tailored to meet specific customer requirements. In total there are currently five camera series, representing state-of-the-art camera technology which match the specific needs of our customers:

SVCam-ECO
Maximum performance with a minimum of size. Cost-effective Gigabit Ethernet camera series for your applications.

SVCam-EVO
The Masterpiece of camera engineering. Combines high resolution with the highest level of speed. DualGigE- or Camera Link-output available. A very unique set of features to maximize flexibility and benefits.

SVCam-CF
Diversity and flexibility with Gigabit Ethernet or Camera Link interfaces. Coverage of the most popular CCDs in order to suit all of your applications.

SVCam-HR
Maximum resolution, yet smallest design possible. With Gigabit Ethernet and Camera Link interfaces for those applications requiring absolute precision.

SVCam-SLC
Slim, right-angle housing allowing access to space limited applications. This very unique GigE Vision camera series will open up new opportunities.

Supported Interfaces

GiGE VISION™ GEN<i>CAM CAMERA Link

For more information our sales team will be pleased to assist you with expert advice. Please contact us.

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