

SVCam-CF

VGA up to 5 Megapixel



SVCam-CF

Approved industrial camera family based on the latest technologies and modular design

Decreasing clock cycles combined with increasing requests for precision have to be managed reliably and error-free in today's highly automated production facilities. Quality assurance by means of image processing techniques is a must. It can be achieved only by use of absolutely reliable high-performance components, easy to integrate into existing systems and infrastructures.

Low effort with the implementation of machine vision and early identification of defective products reduce the fabrication costs, increase the rate of yield and thus lead to a quick return of investment.

The SVCam-CF camera family ensures the maximum performance required for such demands. The **CameraLink** and **GigE** interfaces are internationally standardized for highest data transfer rates between camera and PC. Resolutions from VGA up to 5 megapixel are available. With their cutting-edge electronics design the cameras offer very high image frequencies at extremely low noise levels. The compact housing of our cameras enables installation even with limited space conditions.

Sophisticated processing of the analog CCD video signal by Correlated Double Sampling (CDS) to reduce noise and an early conversion into digital signals results in an excellent signal-to-noise ratio. The integrated intelligence offers various modes for exposure time and trigger control settings.

Striking advantages of GigE Vision

The possibilities opened up by the international interface standard GigE Vision (Gigabit Ethernet for Machine Vision) go far beyond those of previously used image processing standards. Vision hardware compliant with this specification communicates with the host PC by means of a standard defined protocol based on UDP/IP. The GigE Vision standard refers to the standard software interface GenICam (Generic Interface for Cameras) that addresses all the camera functions via a standardized XML file, thus guaranteeing that the entire software is mutually compatible, and the GigE versions of the SVCam-CF series is compatibly bound into this standardized communications structure. GigE Vision offers

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

- > Ethernet infrastructure with cost effective and proven components and easy installation
- > No need to use a frame grabber board
- > GigE is downwards-compatible to Fast Ethernet and upwards-compatible to 10 GB Ethernet
- > Wide range of factory-made industrial-standard plugs and cables up to protection class IP68
- > High image data transfer rate of 100 MB/sec
- > Up to 100m range without additional data communications equipment
- > Wide range of applications in image processing
- > Any desired number of devices can be connected to the host
- > Remote service capability

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

- > Progressive Scan CCD sensors
- > Monochrome and color versions (Bayer Pattern)
- > Various trigger (internal/external/free running) and exposure modes
- > Adjustable gain
- > Low offset
- > Various binning modes
- > Partial Scan
- > C-Mount
- > Operating temperature range from -10°C (non-condensing) to +40°C
- > Power supply: +12V DC

CameraLink specific features:

- > 8 or 10 Bit data; some models with 12 Bit option available

GigE specific features:

- > GigE Vision (Gigabit Ethernet) standard compliant
- > 100/1000 MBit Ethernet interface

- > 8, 10 or 12 Bit transferred
- > Area of interest (AOI)
- > White balance for color versions
- > Opto-isolated strobe output, configurable delay
- > SDK for Windows and Linux available

Overview CameraLink Cameras



Camera Type	Resolution (pixel)	Sensor Size	Frame Rate (Hz, max.)	Pixel Size (μm)	Housing Size (mm)	ADC Bit Option	Lens Mount
svs340	640 x 480	1/3"	250	7.4	50x55x43	10	C-Mount
svs424	640 x 480	1/3"	116	7.4	50x55x35	10	C-Mount
svs414	640 x 480	1/2"	60	9.9	50x55x35	12	C-Mount
svs204	1024 x 768	1/3"	50	4.65	50x55x35	10	C-Mount
svs1020	1000 x 1000	2/3"	71	7.4	50x55x43	10	C-Mount
svs285	1360 x 1024	2/3"	33	6.45	50x55x35	10/12	C-Mount
svs2020	1600 x 1200	14.8mm Diag.	40	7.4	50x55x43	10	C-Mount
svs274	1600 x 1200	1/1.8"	25	4.4	50x55x35	12	C-Mount
svs4021	2048 x 2048	21.5mm Diag.	25	7.4	50x55x43	10/12	M42/C- or F-Mount
svs625	2448 x 2048	2/3"	15	3.45	50x55x43	10/12	C-Mount

Overview GigE Cameras



Camera Type	Resolution (pixel)	Sensor Size	Frame Rate (Hz, max.)	Pixel Size (μm)	Housing Size (mm)	ADC Bit Option	Lens Mount
svs340	640 x 480	1/3"	264	7.4	51x55x73	14	C-Mount
svs424	640 x 480	1/3"	121	7.4	51x55x64	10	C-Mount
svs204	1024 x 768	1/3"	50	4.65	51x55x64	10	C-Mount
svs1020	1000 x 1000	2/3"	72	7.4	51x55x73	14	C-Mount
svs285	1360 x 1024	2/3"	33	6.45	51x55x64	14	C-Mount
svs2020	1600 x 1200	14.8mm Diag.	33	7.4	51x55x73	14	C-Mount
svs274	1600 x 1200	1/1.8"	26	4.4	51x55x64	14	C-Mount
svs4021	2048 x 2048	21.5mm Diag.	19	7.4	51x55x73	14	M42/C- or F-Mount
svs625	2448 x 2048	2/3"	15	3.45	51x55x73	14	C-Mount

For higher resolutions see our SVCam-HR datasheet.

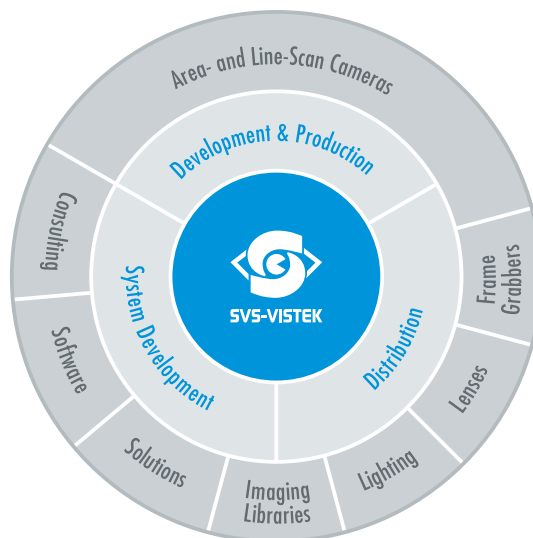
Application areas

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

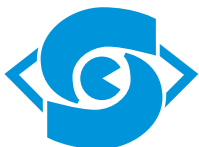
- > Aerospace
- > Automotive
- > Beverage
- > Food
- > Information
- > Mechanical engineering
- > Medical technology
- > Optical metrology
- > Pharmaceutical
- > Photovoltaic/power engineering
- > Plastics
- > Printing
- > Semiconductor
- > Timber
- > Traffic monitoring
- > Transportation systems

Product range

The portfolio of our product range for the domestic market covers the whole field of machine vision components. Internationally we provide global sales, service and support through our distributors in Europe, USA and Asia for the SVCam camera series.



Supported Interfaces



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