SVCam-svs 16000

SVCam-HR Series

Compact 16 Megapixel Camera

This digital Machine Vision camera models have a resolution of 4872 x 3248 pixel.

The cameras are designed to reach high frame rates at an excellent signal-to-noise ratio and are enclosed in a small housing.

Correlated Double Sampling (CDS) and 2 x 14 Bit A/D converters guarantee an excellent signal-to-noise ratio.

The internal logic allows different ways to adjust exposure time and select trigger modes including:

> Synchronization of image capture to an external event (trigger mode)
> "Free running" with maximum frame rate
> Exposure time control via serial interface or by trigger pulse width
> Longer exposure times up to under low light level conditions

Technical Highlights/Technical Data

> Progressive Scan technology
> Resolution: 4872 x 3248 pixel
> Synchronization:
  · "Free running" (frame rate adjustable)
  · External trigger with internal exposure control
  · External trigger with pulse width exposure control
  · Software trigger via PC (GigE)
> Housing dimensions:
  · GigE Version: 70 mm x 71 mm x 50.5 mm
  · CameraLink: 65 mm x 67 mm x 42.5 mm
> Monochrome and color sensors (Bayer Pattern)
> 12 Bit video data stream (using 14 Bit ADC)
> 256 MB Memory inside(GigE Version)
> Internal Memory: 256 MB RAM / 8MB Flash + 128 MB Flash
> Internal LUT operations (GigE Version)
> Pixel defect correction (GigE Version)
> Internal shading correction (GigE Version)
> Adjustable gain
> Adjustable clock speed (48/40/30 MHz)
> Low offset
> Binning mode
> Partial scan mode for higher frame rates (Camera Link)
> Area of Interest (AOI) (GigE Version)
> M58 x 0.75 Mount (optional F-Mount adapter)
> 12V DC @ approx. 900mA consumption (model dependend)
> Broad voltage input possible (+10V to +25V DC)
> Operating temperature range: -10°C to +40°C
> Full 2 years warranty

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Scale your vision.

Overview

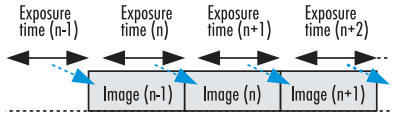
SVCam-svs 16000	GigE Version		Camera Link Version	
Camera Type	svs16000XFGE	svs16000XUGE*	svs16000XOLCPC2	svs16000XTLCPC2
Resolution	4872 x 3248	4872 x 3248	4872 x 3248	4872 x 3248
Frame Rate (Hz, max.)	3.3	4.0	2.6	4.9
Pixel (µm²)	7.4 x 7.4	7.4 x 7.4	7.4 x 7.4	7.4 x 7.4
CCD-Size Equivalent	43.3 mm diag.	43.3 mm diag.	43.3 mm diag.	43.3 mm diag.
Exposure Time internal	160 µs - 2 s	160 µs - 2 s	282 µs - 8 min	282 µs - 8 min
Exposure Time external	160 µs - ∞	160 µs - ∞	250 µs - ∞	250 µs - ∞

X = **M**onochrome, X = **C**olor * Ultra high speed (2 x 48 MHz, max.)
Cameras make use of high performance CCD made by **Truesense Imaging, Inc .**®, formerly **Kodak** (USA). For more camera types see our SVCam-HR product overview.

Operation Modes

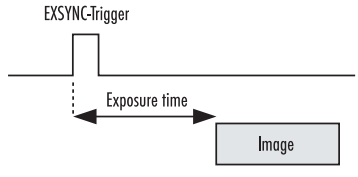
Mode: Free Running/Fixed Frequency

In this mode the camera creates all sync signals itself. Camera is connected to PC and will create images immediately.



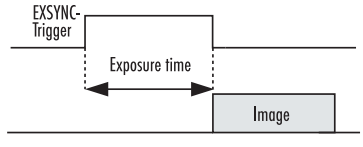
Mode: External Trigger, Internal Exposure Control

The camera needs an external trigger to output images. The exposure time is set by the internal logic inside the camera.



Mode: External Trigger, External Exposure Control

The camera needs an external trigger to output images. The exposure time is determined by the pulse width of the trigger signal and can be changed from frame to frame.



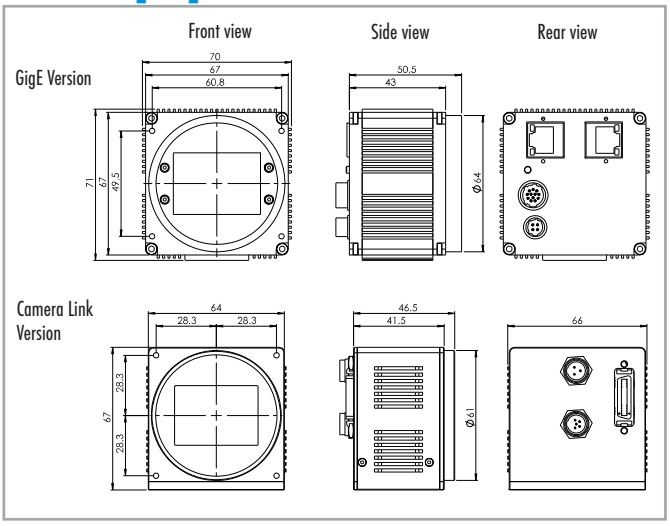
Mode: Software Trigger

The PC sends a command to the camera in order to get data.
Internal logic is set for the exposure time. Jitter must be observed.

Configuration Software

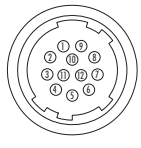
The SVCam cameras come with our SVCapture(for GigE type) or ConvCam-software (for CL type, respectively), it allows easy interactive setup of all camera parameters. The software including a SDK (GigE) or DLL (CL) supports Windows XP and Windows 7 including 64 Bit operating system. A LINUX Driver is also available (GigE only). The camera can be configured using the XML file stored inside the camera (GigE). This complies also with the international GenICam standard.

Dimensions [mm]

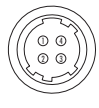


Connector Pin-out (HR 10A-10R-12PB, HR 10A-7R-4PB)

GigE Version



1	VIN- (GND)	7	OUT1 (TTL Level)
2	VIN+ (10V to 25V DC)	8	OUT2 (TTL Level)
3	RXD (RS232 Level)	9	IN3+ (RS422 Level)
4	TXD (RS232 Level)	10	IN3- (RS422 Level)
5	IN1 (TTL Level)	11	OUT3+ (RS422 Level)
6	IN2 (TTL Level)	12	OUT3- (RS422 Level)



1	VIN+ (10V to 25V DC)
2	VIN- (GND)
3	IN0 (TTL Level)
4	OUT0 (TTL Level)

Camera Link Version

1	+12V to +15V DC
2	Reserved (do not connect)
3	GND

1	Reserved (do not connect)
2	Reserved (do not connect)
3	Reserved (do not connect)
4	Tr - (Exsync GND)
5	Tr + (Exsync TTL)

Ordering Guide

Monochrome:	Color:	
svs16000MFGE	**svs16000CFGE**	(max. 3.3 Hz)
svs16000MUGE	**svs16000CUGE**	(max. 4 Hz)
svs16000MOLCPC2	**svs16000COLCPC2**	(max. 2.6 Hz)
svs16000MLTCPC2	**svs16000CTLCPC2**	(max. 4.9 Hz)

Option: M58 to F-Mount adapter

25.10.2012 - Changes without notification