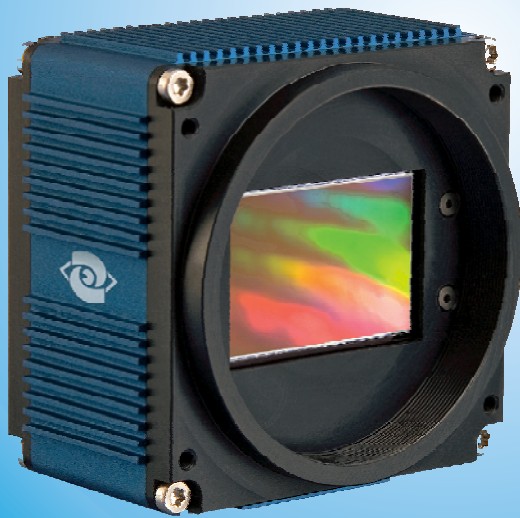


# SVCam-svs 11002V2

# SVCam-svs 16000

## 11- and 16-Megapixel Camera with Gigabit Ethernet



This digital Machine Vision camera has a resolution of 4872 x 3248 pixel. The camera is designed to reach high frame rates in a small housing.

Unique processing of the analogue CCD-signal using Correlated Double Sampling (CDS, a noise reduction method) and digital signal conversion, guarantees an excellent signal-to-noise ratio.

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

- Synchronisation of image capture to an external event
- "Free running" with adjustable frame rate
- Exposure time control via serial interface or by trigger pulse width
- Longer exposure times under low light level conditions

The camera can work fully compliant with GigE VISION standard.

GEN*<i>*CAM **GigE**<sup>™</sup>  
VISION

- 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
- Housing dimensions:
  - 70mm x 71mm x 52,5mm (svs11002V2)
  - 70mm x 71mm x 50,5mm (svs16000)
- Monochrome and color sensors (Bayer Pattern)
- Up to 12 Bit video data stream (14 Bit ADC per tap)
- 256 MB Memory
- Internal LUT operations
- Internal flat-field correction
- Adjustable gain
- Low offset
- 2 x 2 binning mode
- Area of interest (AOI)
- M58 x 0.75 Mount (optional F-Mount adapter)
- Operating temperature range: -10°C to +40°C
- Broad voltage input possible (+10 to +30V DC)
- Full 2 years warranty

# SVCam-svs 11002V2

# SVCam-svs 16000



## Camera Types:

Camera Type	svs11002XFGEV2	svs11002XUGEV2	svs16000XFG	svs16000XUGE*
Resolution	4008 X 2672	4008 X 2672	4872 x 3248	4872 x 3248
Frame Rate (Hz, max.)	4.7	6.2	3.3	4
Pixel ( $\mu\text{m}^2$ )	9 x 9	9 x 9	7.4 x 7.4	7.4 x 7.4
Exposure Time internal	130 $\mu\text{s}$ - 2 s	130 $\mu\text{s}$ - 2 s	160 $\mu\text{s}$ - 2 s	160 $\mu\text{s}$ - 2 s
Exposure Time external	130 $\mu\text{s}$ - $\infty$	130 $\mu\text{s}$ - $\infty$	160 $\mu\text{s}$ - $\infty$	160 $\mu\text{s}$ - $\infty$
CCD-Size Equivalent	43.3mm diag.	43.3mm diag.	43.3mm diag.	43.3mm diag.

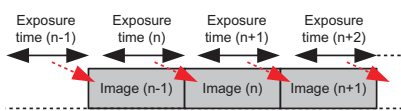
\* Ultra high speed with 2 x 40 MHz

x = Monochrome  
x = Color

## Operation Modes:

### Mode: Free Running

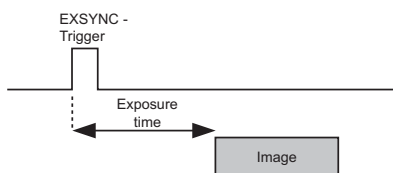
In this mode the camera creates all sync signals itself. The frame rate is adjustable e.g. in the GUI.



There is no need to trigger the camera (by EXSYNC) in order to get data. Exposure time can be set by using the GUI or SDK. The enclosed software allows the user to set the specified values. Exposure time can be changed "on the fly" during image acquisition. The time set stays resident after power off.

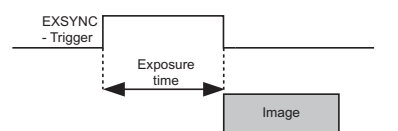
### Mode: External Trigger, Internal Exposure Control

In this mode the camera starts image acquisition after an external trigger event. The exposure time is controlled by the camera via GUI or SDK. The trigger signal is fed direct y into the camera.



### Mode: External Trigger, External Exposure Control

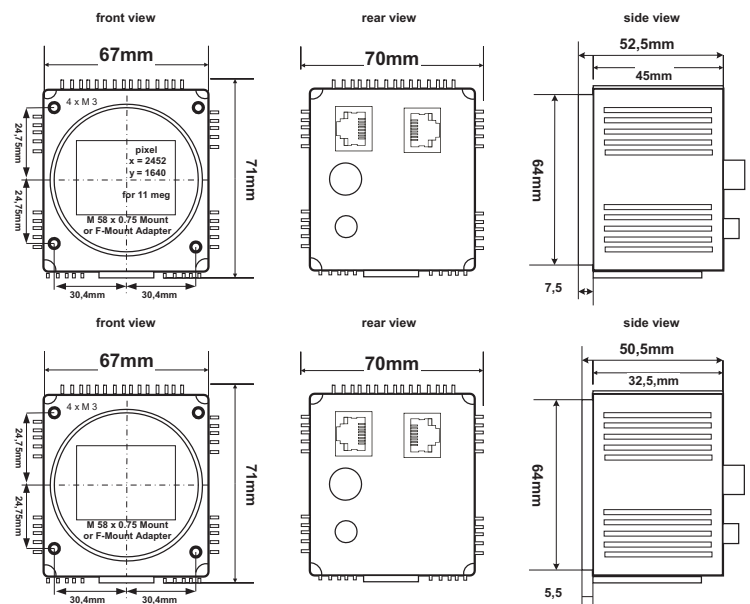
In this mode the camera is waiting for an external trigger which starts integration and read out. Exposure time can be varied using the length of the EXSYNC pulse (i.e. between the rising and the falling edge). The time settings in the control software are not activated. This mode is useful in applications where the light level of the scene changes during operation. Change of exposure time is possible from one frame to the next.



## Configuration Software:

The SVCam-cameras come with our "SVCapture"-software, which allows easy interactive setup of all camera parameters. The program runs under Windows XP 32 but also 64 Bit mode. A XML file compliant with the GenCam standard is supplied with the camera. The free SDK and API coming with the camera allows easy integration into an application without involving frame grabber driver.

## Dimensions (top svs11002V2, bottom svs16000):



## Ordering Guide:

<b>Monochrome:</b>	<b>Color:</b>	
svs11002MFGEV2	svs11002CFGEV2	(dual tap, frame rate 4.7 Hz)
svs11002MUGEV2	svs11002CUGEV2	(dual tap, frame rate 6.2 Hz)
svs16000MFG	svs16000CFGE	(dual tap, frame rate 3.3 Hz)
svs16000MUGE	svs16000CUGE	(dual tap, frame rate 4 Hz)

Option: M58 or F-Mount adapter